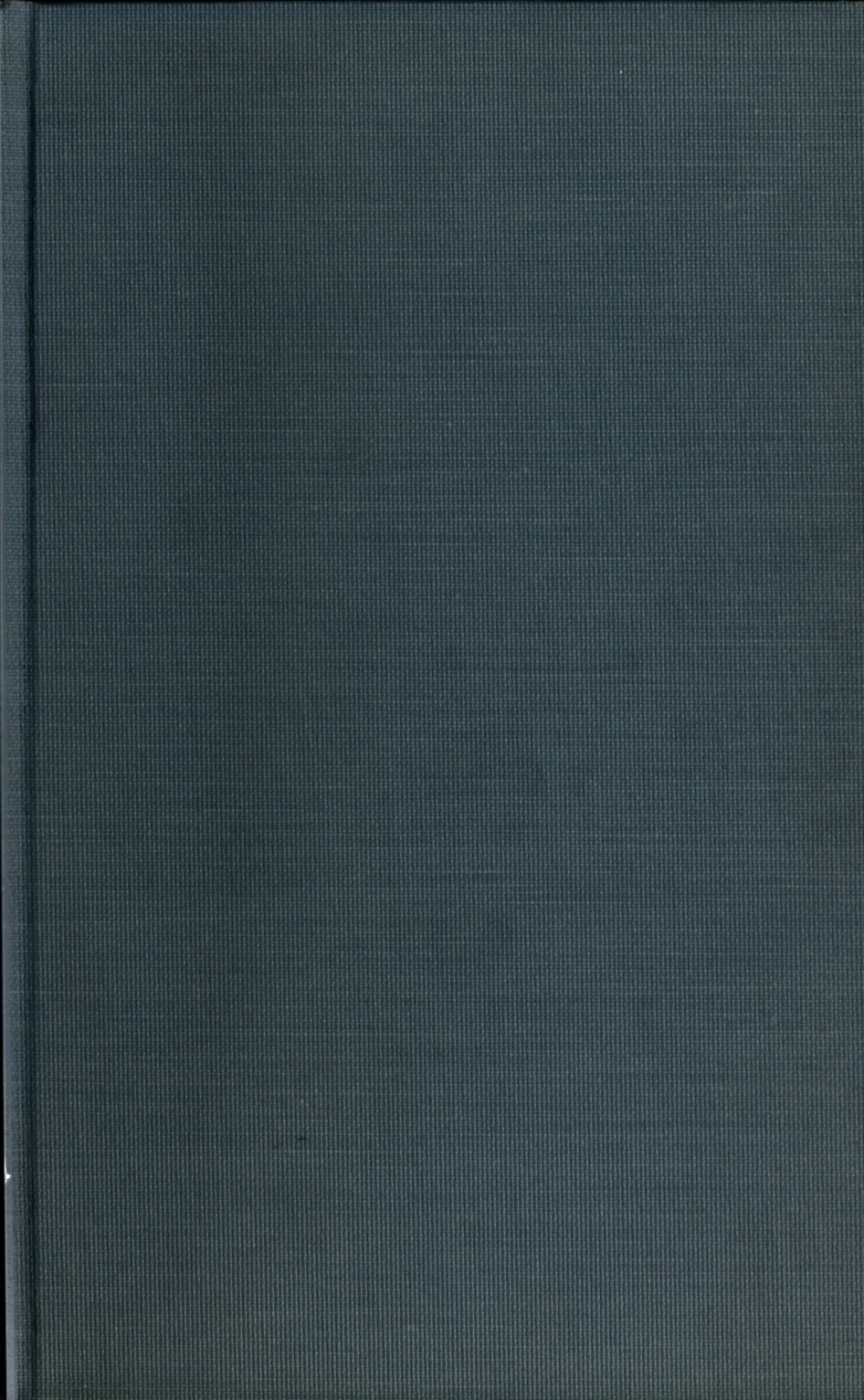








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American Medical Association
Council on Pharmacy &
Chemistry

ANNUAL REPRINT OF THE REPORTS

OF THE

COUNCIL ON PHARMACY AND
CHEMISTRY

OF THE

AMERICAN MEDICAL ASSOCIATION

FOR 1916

WITH THE

COMMENTS THAT HAVE APPEARED
IN THE JOURNAL

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COUNCIL ON PHARMACY AND
CHEMISTRY

PRESS OF
AMERICAN MEDICAL ASSOCIATION
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1917

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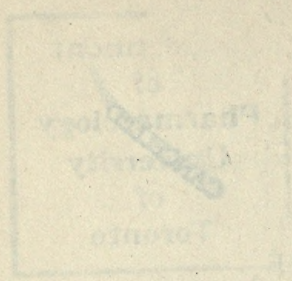
ATLANTA
GA. S. A.

Department
of
Pharmacology
University
of
Toronto

CANCELLED

PREFACE

This volume — the Annual Reprints of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association — contains the reports of the Council which have been adopted and authorized for publication during 1916. It includes reports of the Council previously published in *THE JOURNAL*, along with such editorial comments as have accompanied them. In many instances there have been added to these reports the more strictly scientific matters which because of lack of space or because of their highly technical character were not published in *THE JOURNAL*. In addition, the volume contains reports of the Council which because of their lesser importance were not published in *THE JOURNAL* and which as a matter of record are included here. That the Council's official reports may be made available to physicians, chemists, pharmacologists and others interested in medicine, the Council authorized publication of this volume.



RECEIVED

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CONTENTS

	PAGE
Colloidine	7
Radio-Rem—Outfits No. 2 and No. 3 and C.....	9
Olio-Phlogosis	10
The Hypophosphite Fallacy.....	11
Pulvoids Calcylates.....	18
Arsenobenzol (Dermatological Research Laboratories, Philadelphia Polyclinic) and Diarsenol (Synthetic Drug Company).....	19
Bi-Taride Tablets.....	21
Sulfuryl Monal.....	22
Mark White Goiter Serum and Mark White Iodinized Oil	23
Kora-Konia	31
The Therapeutic Value of Glycerophosphates.....	32
Hydras	36
Toxinol	38
Bromin-Iodin Compound.....	40
Castrox	41
Iron Citrate Green.....	42
Aspirin	43
Casta-Flora	45
Pil. Cascara Compounds-Robins.....	47
Glycerophosphate Comp. Ampuls, 1 Cc. Squibb.....	48
Ampuls Glycerophosphate Comp. No. 1, Mulford.....	49
Alphozone Omitted from N. N. R.....	50
Ammonium Hypophosphite Omitted from N. N. R.....	51
Anderson System for Treatment of Alcoholism.....	51
Calcium Glycerophosphate and Sodium Glycerophosphate Omitted from N. N. R.....	52
Citresia	53
Copper Phenolsulphonate.....	54
Gardner's Syrup of Ammonium Hypophosphite Omitted from N. N. R.....	55
Gare's Granular Lecithine.....	56
Gluten Products Made by the Kellogg Food Company....	56

	PAGE
Iodo-Mangan Omitted from N. N. R.....	64
Leucocytic Extract, Archibald's.....	65
Liquid Albolene.....	65
Naphey's Medicated Uterine Wafers.....	66
Neisser Serobacterin Mixed.....	67
Nujol	68
Pollantin Omitted from N. N. R.....	69
Pulvoids Natrium Compound.....	69
Saliform	71
Secretogen	72
Succinolac	79
Sulfo-Selene (Walker).....	80

REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY

COLLOIDINE

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., March 11, 1916, p. 831

The following report on Colloidin has been adopted by the Council and its publication authorized.

W. A. PUCKNER, Secretary.

This preparation, manufactured by A. Dubois, Paris, France, and marketed in the United States by the Boracol Chemical Company, Passaic, N. J., is described as

"A Colloidal Vegetable Iodine Combination."

Colloidine is sold in the form of tablets said to contain each $\frac{1}{3}$ grain of iodine combined with 1 grain of "Vegetable Albumen" obtained from gluten. The advertising says much of the colloidal state, which is "characteristic of living organisms," within which "the reactions are nearly always between colloids." It is asserted that:

"Colloidine possesses a considerable catalytic action. It undergoes partial peptonization in the stomach and this work is continued in the intestines where the ferment erepsine destroys the albuminous molecule gradually liberating the iodine. . . ."

"Colloidine acts not only like iodine, iodides, and all the derivatives of iodine in general but by reason of its *Colloidal or 'living state'* it possesses a specific action on a great number of diseases."

"3 tablets of COLLOIDINE are equivalent to 15 grains of iodide."

"The action of Colloidine is much gentler than that of all other products of Iodine. *Its elimination is slower, more regular and more prolonged.* . . ."

"Never produces Iodism."

The Chemical Laboratory of the American Medical Association could not confirm these claims. It reports that:

1. Iodine is present in Colloidine in the form of an iodide or a form which so readily yields iodide that the therapeutic effects of Colloidine administration would appear to be that of iodide medication. This is demonstrated by the fact that when Colloidine is treated with water all of the contained iodine goes into solution and from this aqueous solution silver nitrate solution precipitates all of the iodine.

2. Instead of the claimed iodine content of $\frac{1}{3}$ grain (21.6 mg.) per tablet, the tablets of Colloidine were found to contain only 15.46 mg. (about $\frac{1}{4}$ grain) or about 72 per cent. of the amount claimed.

3. Each tablet corresponds in iodine content to $\frac{3}{10}$ grain potassium iodid or $\frac{1}{4}$ grain solution iodid. The largest dose of Colloidine recommended—15 tablets per day in syphilis—corresponds to a dosage of $4\frac{1}{2}$ grains potassium iodid, or $3\frac{3}{4}$ grains sodium iodid. The small dose of iodid administered evidently accounts for the reported absence of symptoms of iodism after the administration of Colloidine.

Colloidine is called a

"New Treatment of Rheumatism, Gout, Arteriosclerosis, Arthritis, Asthma, Emphysema, Scrofula and Syphilis."

Since the chemical examination shows that treatment with Colloidine must amount to the administration of iodid—nothing more—the following claims are unwarranted; they are even absurd.

"Colloidine is the most useful medicine for Arteriosclerosis. It is not only a marvellous curative for this affection, but also an efficacious preventative in functional troubles of presclerosis . . ."

"Colloidine facilitates and regulates the menstrual functions . . ."

"Colloidine constitutes an ideal alternative for purifying the blood."

Finally, the recommendation to depend on Colloidine for the treatment of syphilis is fraught with danger. (As remarked before, the maximum daily dose of Colloidine is equivalent to only $4\frac{1}{2}$ grains potassium iodid or $3\frac{3}{4}$ grains sodium iodid.)

"SYPHILIS AND ITS MANIFESTATIONS (Secondary and tertiary stages) Cerebral Syphilis.

"Dose.—Commence with 3 tablets in the morning and 3 tablets in evening, increase the dose 2 tablets every 8 days up to 15 tablets a day, continue this dose for a month according to the [sic] of the stages of the disease. Twice a year in Spring and Autumn undergo two months treatment.

"In this affection Colloidine can be substituted for Iodides in permitting the absorption of large doses of Iodine without any toxic symptoms or fatigue whatsoever."

It is recommended that Colloidine be held ineligible for N. N. R. for conflict with Rules 1, 4 and 6.

The foregoing report was sent to the American agent for Colloidine, who in the course of time submitted a reply by the manufacturer. The reply objected to the method of analysis used and submitted a method. It also requested a "test" of Colloidine by "American doctors" and offered to remove

conflict with Rule 4. The method of analysis used by the Association's chemists is a standard one; the one proposed by the manufacturers of Colloidine was unsatisfactory and gave variable and lower results. The manufacturer was therefore advised that the evidence submitted did not warrant further consideration of the product so far as the therapeutic claims were concerned, but that if evidence showing removal of conflict with Rule 4 was submitted the report would be modified to bring this out. No reply having been received to this, the report is now published.

RADIO-REM OUTFITS NO. 2 AND NO. 3, and C

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Aug. 19, 1916, p. 631

The Radium Therapy Corporation, Schieffelin & Co., selling agents, submitted to the Council radium emanation generators called "Radio-Rem Outfits," designed to generate respectively 200, 1,000, 2,000, 5,000 and 10,000 Mache units per twenty-four hours.

Those who are well informed on the subject of radium therapy are of the opinion that the administration of small amounts of radium emanation such as generated by certain outfits is without therapeutic value. It has been stated that at the Radium Institute of London the minimum preliminary dose is 185 microcuries (500,000 Mache units), and as many as 555 microcuries (1,500,000 Mache units) are employed.

In consideration of these facts the Council voted not to accept any radium emanation generator which produces less than 2 microcuries of emanation during twenty-four hours. Accordingly, while accepting Radio-Rem Outfit No. 5, claimed to produce 10,000 Mache units (3.7 microcuries) and Radio-Rem Outfit No. 4, claimed to produce 5,000 Mache units (1.8 microcuries), the Council voted not to accept Radio-Rem Outfit No. 3, claimed to produce 2,000 Mache units (0.74 microcurie), Radio-Rem Outfit No. 2, claimed to produce 1,000 Mache units (0.37 microcurie), and Radio-Rem Outfit C, claimed to produce 200 Mache units (0.07 microcurie).

This report having been submitted to Schieffelin & Co. and their reply considered, the Council authorized publication of the report.

OLIO-PHLOGOSIS

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Aug. 19, 1916, p. 631

Olio-Phlogosis, a liquid preparation to be applied externally by means of a cotton pad, is advertised by the Mystic Chemical Company, Kansas City, Mo., thus:

"Doctor: Don't fail to use Olio-Phlogosis liberally for Pneumonia, Bronchitis and Pleurisy. It works quickly. Olio-Phlogosis is as far ahead of all medicated kaolin plasters as these plasters were ahead of the old-time moist and soggy poultices."

A pamphlet advises the use of Olio-Phlogosis in

"... all cases of Inflammation and Congestion, such as Pneumonia, Bronchitis, Pleurisy, Croup, Boils, Carbuncles, Rheumatism, Swollen Glands, Peritonitis, Ovaritis, as a Surgical Dressing, Mamitis [Mastitis (?)], Vaginitis and Metritis (on cotton tampon to deplete these parts), Septic Wounds, Old Ulcers, Chilblain, Eczema, Neuralgia, Inflammation of the Eyes and Ears, Alveolar Inflammation, Burns, Scalds, Etc."

According to the information sent to the Council by the Mystic Chemical Company, Olio-Phlogosis has the following composition per gallon:

Ol. Gaultheria	drs.	8
Ol. Eucalyptus	drs.	8
Ol. Abies Canadensis.....	drs.	2
Ol. Thyme (white).....	drs.	2
Resublimated Iodin crystals.....	grs.	32
Resorcin	drs.	1
Acid Boracic C. P.....	drs.	2
Quinine Bisulphate	drs.	4
Sodium Thiosulphate	drs.	3½
Glycerin C. P.....	q. s. ad gal.	1

A nonquantitative formula which appears on the label of a sample bottle sent to a physician enumerates the same ingredients except the sodium thiosulphate.

The A. M. A. Chemical Laboratory reports that no free iodine could be detected in the preparation.

Apparently, then, Olio-Phlogosis is essentially a skin irritant applied by means of cotton; it can be expected to be just about as effective as the old-fashioned cotton pneumonia jacket, used in conjunction with an aromatic skin irritant, such as camphorated oil or wintergreen or menthol ointment. The odor may have some psychic effect, and it is possible that some of the oily matter may be absorbed by the skin. That such small amounts, even if absorbed, can produce any considerable systemic effect, however, is highly improbable,

and the advice that this preparation be relied on in pneumonia, pleurisy, peritonitis, etc., is pernicious. In the few cases of pneumonia in which heat is indicated, the plain cotton pad will usually be found sufficient. If the physician considers the addition of a skin irritant desirable, it is easy to select one from the official preparations. It will be far more rational to do so than to invoke the aid of a mystic name and a complex formula to which the patient and his family, at least, will be led to give unmerited credit.

The claims made for Olio-Phlogosis are unwarranted; its composition is complex and irrational, and the nondescriptive but therapeutically suggestive name is likely to lead to uncritical use. The Council voted that the product be refused recognition for conflict with Rules 6, 8 and 10, and that this report be published.

THE HYPOPHOSPHITE FALLACY

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 2, 1916, p. 760

The Council has adopted the following report and authorized its publication.

W. A. PUCKNER, Secretary.

The introduction of hypophosphites into medicine was due to an erroneous and now discarded theory as to the cause of tuberculosis of which one Dr. J. F. Churchill of London, and later of Paris, was the promulgator and propagandist.¹ This theory was that the so-called "tuberculous diathesis" was due to a deficiency of phosphorus in the blood. Believing that the hypophosphites, while nontoxic, were capable of further oxidation in the organism, Churchill recommended them as the best means of supplying the supposedly lacking phosphorus. It is now known that tuberculosis is not due to a deficiency of phosphorus. Of more importance is the fact, now known, that little phosphorus, if any, is assimilated from the hypophosphites—far less than from phosphorus compounds of ordinary food.² There is no justification for giving hypophosphites for the sake of their phosphorus content. For various reasons, however—partly from force of habit and partly because of the power of advertising—many physicians still prescribe hypophosphite preparations, and consequently, they are still included in the Pharmacopeia and in textbooks on materia medica and

1. Churchill, J. F.: *De la cause immédiate et du traitement spécifique de la phthisie pulmonaire et des maladies tuberculeuses*, Paris, 1858.

2. The Hypophosphite Fallacy, *THE JOURNAL*, April 25, 1914, p. 1346.

therapeutics. They are put out in the form of "specialties" and of proprietary preparations, and are lauded extravagantly by the manufacturers of the latter.

Although the overwhelming weight of evidence was against the probability that the hypophosphite preparations are of value as therapeutic agents, the Council thought it well to investigate the subject. Dr. W. McKim Marriott of Baltimore was therefore requested to review the evidence for and against the therapeutic usefulness of the hypophosphites and to conduct such experiments as seemed necessary. His report has already appeared in *THE JOURNAL*.³

Dr. Marriott found that nine observers (Paquelin and Joly, Vermeulen, Boddaert, Massol and Gamel, Panzer, Delaini and Berg), who endeavored to test the alleged utilization of the hypophosphites in the organism, reported that there is complete, or practically complete, elimination of hypophosphites in the urine, with little or no effect on the body. Only one experimenter (Patta) claimed that a considerable amount of ingested hypophosphite was retained in the body; however, he used a method now known to be inaccurate and made obvious errors in calculation, so that his conclusions are unwarranted.

Since the evidence was even to this extent contradictory, Marriott performed a series of experiments. The methods of this study and details of results are described in his paper, in which he also discusses the experiments of some other observers. Marriott writes:

"None of the subjects of the experiment [Marriott's] experienced any effect whatsoever from the administration of the drug. . . . Almost all of the ingested hypophosphite is promptly eliminated unchanged. . . .

"These experiments [Forbes'] demonstrate conclusively that the hypophosphites possess no specific value as a source of phosphorus for the body. This is not to be wondered at in view of the fact that 85 per cent. of the phosphorus ingested in the form of hypophosphite is excreted unchanged, and there is no proof that even the remaining 15 per cent. is available to the organism. It is doubtful if there are any conditions in which the body suffers from lack of phosphorus. Even should such conditions exist, phosphorus, in the form that it occurs in the ordinary foods, or as phosphates, is more efficient in supplying the deficit than hypophosphites that must be oxidized before utilization and which are only about 15 per cent. oxidized if at all. For example, half a glass of milk contains more available phosphorus

3. Marriott, W. McKim: The Therapeutic Value of the Hypophosphites, *THE JOURNAL A. M. A.*, Feb. 12, 1916, p. 486.

than three large doses of hypophosphites of 15 grains each, as great a dosage as is usually given.

"What, then, is the therapeutic value of hypophosphites? There is no reliable evidence that they exert a physiologic effect; it has not been demonstrated that they influence any pathologic process; they are not 'foods.' If they are of any use, that use has never been discovered."

In view of the foregoing, it seemed to the Council advisable to examine the claims under which a few of the proprietary hypophosphite preparations are marketed. The following are representative:

FELLOWS' SYRUP OF HYPOPHOSPHITES

No very exact information concerning the composition is furnished by the manufacturers (Fellows Medical Mfg. Co., New York). They say that the product

"... contains the chemically pure hypophosphites of iron, quinin, strychnin, calcium, manganese and potassium, agreeably blended in the form of a bland, stable syrup with a slightly alkaline reaction. . . .

"Each fluid drachm contains the equivalent of 1-64th of a grain of pure strychnin."

The Fellows' Hypophosphites advertising furnishes something like a barometer of the popular status of hypophosphites. In one circular (undated, but, from certain references contained in it, presumably issued ten or fifteen years ago) we read:

"It is an indubitable fact that the hypophosphites have earned the distinction of having their therapeutic value more completely established than have any other remedial agents. . . . it is only by accepting the current view, which was originally advanced by Mr. Fellows, that we can satisfactorily account for the incontestable fact that the hypophosphites are of supreme importance in the treatment of a very extensive variety of affections. . . . the hypophosphites increase the consumption of oxygen and the elimination of carbon dioxide. In this manner, they stimulate nutrition and promote constructive metamorphosis. . . . It is now universally conceded that the widespread utility of the hypophosphites is due to the fact that they substantially improve metabolic processes, thus increasing the disease-resisting capacity of all the tissues."

The circular, continuing, emphasizes the "incomparable phosphorus-contributing properties" of Fellows' Syrup, its "extraordinary reconstructive properties" and "the magnificent results which invariably attend its employment in the treatment of anemia, chronic bronchitis, chlorosis, neurasthenia, mollities ossium, delayed union of fractures, rickets, convalescence," etc.

A circular bearing the copyright date 1914, on the other hand, admits that:

"The theories for the favorable action of Fellows Syrup of Hypophosphites have undergone several changes."

The same circular further maintains, however, that:

" . . . the fact has never been challenged that in Fellows Syrup of Hypophosphites we have one of the most efficient, most complete, most all-round tonics and roborants in the *materia medica*."

No attempt is made to base this assertion on the therapeutic action of the constituents. In other words, the old theory, which formed the basis for the popularity of Fellows' Syrup, has been thrown overboard, but no substitute is deemed necessary; the momentum already acquired is apparently regarded as sufficient to insure its continued sale.

Fellows' Syrup of Hypophosphites is a semisecret, unscientific preparation—an affront to sound therapy—exploited by means of extravagant and misleading statements.

SYRUPUS ROBORANS (SYRUP HYPOPHOSPHITES COMP. WITH
QUININ, STRYCHNIN AND MANGANESE)

Little information concerning this preparation seems to be furnished at present by the manufacturers, Arthur Peter & Co., Louisville, Ky. According to an old circular, it contains, in each fluidounce,

	Grains
"Hypophos. Potass.	1½
Hypophos. Manganese	1
Hypophos. Lime	1
Hypophos. Iron	1½
Hypophos. Quinin	9/16
Hypophos. Strychnin	1/16
"1/128 grain Strychnia to Teaspoonful."	

Further, according to the same circular:

"The Hypophosphites are especially useful in all diseases where there is a lack of nutrition. . . . They are the best of all remedies in Rachitis, non-union of fractures, Osteomalacia and Syphilitic Periostritis."

As for Syrupus Roborans itself:

"This elegant preparation is . . . the best general tonic and reconstructive known."

The unwarranted therapeutic claims formerly made for it seem to be no longer circulated. Syrupus Roborans is an unscientific, shotgun mixture.

SCHLOTTERBECK'S SOLUTION HYPOPHOSPHITES OF LIME AND SODA
(LIQ. HYPOPHOSPHITUM, SCHLOTTERBECK'S)

The Schlotterbeck & Foss Co., Portland, Maine, the manufacturers, say of their preparation:

"This solution contains 30 grains of the combined Hypophosphites of Lime and Soda to the ounce. It contains No Sugar, No Acid and it is Perfectly Neutral."

"Indications for use.—Galactostasis, Imperfect Metabolism, Neurasthenia, Nervous Dyspepsia, Insomnia, Convalescence, Acetonuria, Cyclic Vomiting in Infants, Diabetes, Starvation, Deficiency of Lime, Mother's Teeth during Pregnancy, Dentition of Infants, Rachitis, Furunculosis, Vomiting of Pregnancy, Obesity."

"Migraine is often caused by conditions for which this Solution is one of the most satisfactory remedies."

"In Insomnia due to advancing age, it will often act as a hypnotic."
• . . ."

Of the hypophosphites the Schlotterbeck & Foss Company say:

"If 'damning it with faint praise' on the part of some of the leading medical authorities, or utterly condemning it as useless, on the part of others, would kill a medicine, the Hypophosphites would long since have disappeared as medicinal agents. Negative testimony in regard to the value of a drug does not settle anything."

Of their own preparation they say:

"When we get the results that ought to follow the administration of Hypophosphites, we have proved that Schlotterbeck's Solution enters the system unchanged."

"This Solution is primarily a blood and nerve tonic and chemical food."

Schlotterbeck's Solution of Hypophosphites of Lime and Soda is a semisecret preparation marketed under claims that are both unwarranted and misleading.

ROBINSON'S HYPOPHOSPHITES

According to the manufacturers, the Robinson-Pettet Company, Louisville, Ky., each fluidounce of this preparation contains:

"Hypophosphites Soda	2	gr.
Hypophosphites Lime	1½	gr.
Hypophosphites Iron	1½	gr.
Hypophosphites Quinin	¾	gr.
Hypophosphites Strychnine	1/16	gr."

It is claimed to be

"Nutritive, Tonic Alternative. A Standard Remedy in the treatment of Pulmonary Phthisis, Bronchitis, Scrofulous Taint, General Debility, etc. Stimulates Digestion, promotes Assimilation."

The declared composition of the preparation is unscientific, and the therapeutic claims are unwarranted.

EUPEPTIC HYPOPHOSPHITES

Nelson, Baker & Co., Detroit, Mich., who market Eupeptic Hypophosphites, call this preparation:

"A superior combination containing the Hypophosphites of Potassium, Calcium, Iron and Manganese, and the bitter tonics, Quinin and Strychnin, agreeably associated with natural digestive ferments of the

pancreatic secretion. It is thus a general reconstructive tonic. . . . The remedy is of especial value in the treatment of mental and nervous affections. . . . It is indicated in pulmonary tuberculosis, in all wasting diseases, in debilitated conditions generally and in all exhaustion from over work."

On the basis of the manufacturer's statement, Eupeptic Hypophosphites must be regarded as a semisecret, unscientific, shotgun preparation, exploited through unwarranted therapeutic claims.

MCARTHUR'S SYRUP OF THE HYPOPHOSPHITES COMP.
(LIME AND SODA)

So far as the recent literature and trade package are concerned, no information as to the composition of this product is furnished beyond what is conveyed in the name. The advertising for McArthur's Syrup, like that for Fellows' Syrup and Peters' Syrupus Roborans, has been modified as time has passed. A few years ago it was advertised under such claims as the following:

" . . . Has Stood the Test during many years for unequaled efficacy in the treatment of Tuberculosis. . . . Indicated also as a Tonic and Tissue Builder in convalescence from Fevers, in Nervous Diseases, Rickets, Senile Debility and Bronchitis."

"Its use is indicated in . . . diseases of the chest, chronic cough, throat affections, general debility, brain exhaustion, cholera infantum and wasting diseases of children."

At present no definite claims seem to be made for it; the manufacturers evidently find the magic name of hypophosphites sufficient to evoke the spell for which the advertisement writer's aid was once sought. A testimonial contained in a circular which seems to be still used illustrates both the kind of aura which surrounds hypophosphites in the minds of physicians who are still living in the past, and the kind of logic which has made the reputation of this and many other equally worthless preparations.

"Just about six years ago I had a severe attack of La Grippe which almost killed me. Left me with Asthma (Catarrh) and a severe cough. Did not get out of the house for three months. Took over a dozen bottles McArthur's Hypophos. — came out all right and since then worked hard, but last Fall took another cold, but worked on, used McArthur's Hypophos., am using it now, am on my 12th bottle.

"I have five or six patients whom I have put on McArthur's Hypophos., but I do not prescribe the single bottle, but *wholesale* no less than half dozen bottles. One patient is on his 24th bottle with orders to get another half dozen and keep it up all winter. I have given the same order to all (keep it up all winter) and I myself intend to do the same, for with its use I have lost no time — rain or shine I am doing my work. I know what it has done for me and what it is doing for my patients."

It would be hard to find a more characteristic example of the naïve mental processes of the simple folk who in all good

faith write testimonials for worthless medicines. This well-meaning practitioner (a homeopath, by the way), because he "came out all right" after an attack of grip, returns all praise to McArthur's Hypophosphites, which he has taken "wholesale." Not the faintest doubt of the validity of his *post hoc ergo propter hoc* argument seems to glimmer across his consciousness.

McArthur's Syrup of the Hypophosphites is an irrational preparation. While its faults are fewer and less glaring than those of some other proprietaries, the circulation of such a testimonial as the one just quoted is sufficient of itself to cast suspicion on the product.

BORCHERDT'S MALT OLIVE WITH HYPOPHOSPHITES, MALTZYME
WITH HYPOPHOSPHITES, MALTINE WITH HYPOPHOSPHITES
AND MALTINE WITH OLIVE OIL AND HYPOPHOSPHITES

These preparations are now described in the appendix to New and Nonofficial Remedies. Borcherd's Malt Olive with Hypophosphites (Borcherd Malt Extract Company, Chicago) is said to contain in each 100 c.c., 0.64 gm. each of calcium and sodium hypophosphites, with malt extract, olive oil and glycerin. Maltzyme with Hypophosphites (Malt-Diastase Company, New York) is said to contain, in each 100 c.c., 0.4 gm. each of calcium, sodium and potassium hypophosphites and 0.005 gm. each of iron and manganese hypophosphites, with maltzyme. Maltine with Hypophosphites (Maltine Company, Brooklyn, N. Y.) is said to contain in each 100 c.c., 0.64 gm. each of calcium and sodium hypophosphites and 0.42 gm. of iron hypophosphite, with maltine. Maltine with Olive Oil and Hypophosphites (Maltine Company, Brooklyn, N. Y.) is said to contain, in each 100 c.c., 0.6 gm. each of calcium and sodium hypophosphites, with maltine and olive oil. In general, no therapeutic claims are made for these mixtures so far as the hypophosphites are concerned. The addition of hypophosphites to such mixtures is irrational and, since it tends to perpetuate the hypophosphite fallacy, detrimental to sound therapeutics.

THE COUNCIL'S ACTION

The Council endorsed the conclusions of the work of Dr. Marriott referred to above, and voted: (1) that the therapeutic use of hypophosphites (except possibly in some cases as a convenient means of administering the positive element in the salt, as ammonium in ammonium hypophosphite or calcium in calcium hypophosphite) is irrational; (2) that

the merits of each hypophosphite salt submitted for consideration under the foregoing exception must be judged individually, and (3) that Fellows' Syrup of Hypophosphites, Peters' Syrupus Roborans, Schlotterbeck's Solution Hypophosphites of Lime and Soda, Robinson's Hypophosphites, the Eupeptic Hypophosphites of Nelson, Baker & Co., and McArthur's Syrup of the Hypophosphites are ineligible for inclusion in New and Nonofficial Remedies, and that Borchardt's Malt Olive with Hypophosphites, Maltzyme with Hypophosphites, Maltine with Hypophosphites, and Maltine with Olive Oil and Hypophosphites be deleted from the appendix of N. N. R. Of these preparations, all are in conflict with Rule 10; Fellows' Syrup, Schlotterbeck's Solution, Robinson's Hypophosphites and Nelson, Baker & Co.'s Eupeptic Hypophosphites are in conflict with Rule 6; the Fellows, Schlotterbeck, and Nelson, Baker preparations are also in conflict with Rule 1.

PULVOIDS CALCYLATES

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 9, 1916, p. 827

Pulvoids Calcylates 5 grains was submitted by the Drug Products Company, Inc., New York, under the following claims as to composition:

"When ingested represents the following chemical formulas: $C_6H_4(OH)(COO)_2$ Ca. $2H_2O + Sr. (C_7H_5O_3)_2 + 2H_2O$."

"Strontium Di-Salicylate $2\frac{1}{2}$ grs. and our especially prepared Salt of Calcium and Acid Salicylic adjusted in such nascent form that these pulvoids upon ingestion will promptly form Calcium Neutral Di-Salicylate $2\frac{1}{2}$ gr."

"A combination of Calcium and Strontium Di-Salicylate, in seemingly true chemical union."

These statements are rather vague, possibly because they are an attempt to mystify. The product, however, may be assumed to be a mixture (not a chemical combination) of calcium salicylate and strontium salicylate. The therapeutic claims made for the preparation are:

"Superior to ordinary salicylates. Can be taken continuously and indefinitely without gastric irritation, insuring maximum efficiency."

"Reports show surprisingly good results, even where the sodium salt fails."

As there is no evidence to show that strontium salicylate, calcium salicylate or a mixture of the two salts has any advantage over sodium salicylate, these claims cannot be

accepted. The name and the statement of composition are objectionable in that they do not reveal the identity of the drugs in "Calcyates" and in suggesting that this preparation possesses radical advantages over salicylates in other forms.

The Drug Products Company was told that the facts just mentioned rendered "Pulvoids Calcyates" ineligible for New and Nonofficial Remedies. The company in its reply objected to the Council's conclusions, and in support of its position submitted testimonials from a number of physicians. The reply of the company embodied no facts or arguments which had not been considered by the Council's referee, and the testimonials from physicians contained no evidence to show that the combination has any real advantage over sodium salicylate.

The Council therefore declared "Pulvoids Calcyates" ineligible for New and Nonofficial Remedies for the following reasons: Unwarranted therapeutic claims are made for the mixture (Rule 6); the name does not describe the composition (Rule 8), and the mixture is an unessential modification of an established remedy (sodium salicylate) (Rule 10).

**ARSENOBENZOL (DERMATOLOGICAL RESEARCH
LABORATORIES, PHILADELPHIA POLYCLINIC)
AND DIARSENOL (SYNTHETIC
DRUG COMPANY)**

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 16, 1916, p. 879

Arsenobenzol is made by the Dermatological Research Laboratories, Philadelphia Polyclinic, Philadelphia; Diarsenol is made by the Synthetic Drug Company, Toronto, Canada. Each of these preparations, like salvarsan, consists of the hydrochlorid of 3-diamino-4-dihydroxyl-1-arseno-benzene, with small admixtures of unimportant impurities. The Council found these products to be substantially identical with salvarsan in composition and equal to salvarsan in therapeutic efficiency. Both would have been regarded as entirely eligible for New and Nonofficial Remedies had it not been for a doubt on the subject of their legal status.

The Dermatological Research Laboratories and the Synthetic Drug Company were therefore asked whether in their opinion the sale in the United States of Arsenobenzol (Dermatological Research Laboratories) and Diarsenol (Synthetic Drug Company) was illegal, and if physicians using them are

liable to legal proceedings by the owners of the salvarsan patent.

Dr. Schamberg, on behalf of the Dermatological Research Laboratories, replied:

" . . . in all probability our product Arsenobenzol would be regarded by a court as an infringement on the salvarsan patents. We have had a sort of gentlemen's agreement with the American representatives of the Farbwerke-Hoechst Company whereby our laboratories would not be interfered with in distributing Arsenobenzol to the medical profession during the period that salvarsan could not be obtained in the American market. On the other hand, we tacitly agreed to cease marketing our product when a sufficient supply of the German preparation became available to the profession of this country. If in the future the supply of salvarsan should again become exhausted or so seriously impaired as to cause hardships in this country, we would again furnish the drug to physicians and hospitals. Under such circumstances no court would construe that a physician using our drug was rendering himself liable to legal procedure."

The Synthetic Drug Company replied:

" . . . we claim that Diarsenol is chemically identical with Salvarsan.

"Without, however, going into the question of whether it is manufactured by us exactly under the specifications of the patent in question, we might point out that in any event our product Diarsenol is legally manufactured in this country (Canada) under a license and subject to a royalty which is paid to the commissioner of patents.

"Whether this royalty is ultimately paid to the holders of the Canadian patent, Meister Lucius & Brüning, or not may depend upon the treatment accorded to British patentees by the German government after the war.

"The same firm are the holders of the U. S. patent, and we might point out that the salvarsan sold in the United States is not manufactured there but is imported from the patentees' own factory in Germany.

"At the present time Meister Lucius & Brüning are not in a position to furnish for the United States the product made by them in Germany, and as they are not attempting to manufacture in the United States they cannot be suffering any damage by the sale of our product, but on the other hand may in reality be profiting by it, if ultimately they receive the royalties paid by us to our government.

"On this account we do not think they could successfully maintain an action in the United States as they could not show that they are suffering any damage from loss of sales, and certainly not from the cutting of prices.

"Whether or not they would institute legal proceedings it

is impossible to say, but so far they have not done so and our product has been on the U. S. market for nearly a year.

"If an action were brought there might possibly arise questions as to the validity of the U. S. patents, but there is no necessity of raising this question at the present time."

Owing to the possibility of patent complications, and the apparently temporary status of at least one of these products, the Council deemed it advisable not to admit Arsenobenzol (Dermatological Research Laboratories) or Diarsenol (Synthetic Drug Company) to New and Nonofficial Remedies. At the same time, it desires to point out that these products are apparently identical with salvarsan.

BI-TARIDE TABLETS

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 16, 1916, p. 895

Bi-Taride Tablets, dark-brown tablets with a strong tarry odor, were submitted to the Council by the Germicidal Products Corporation, New York. According to information furnished:

"The tablet is a mixture and contains as active principle (25%) of the aromatic series of coal tar with the group formula $C_nH_{2n-3}(OH)$, Cane Sugar, Sugar of Milk, Boric Acid, etc., sufficient to ensure a soluble and stable tablet."

The identity of the "active principle (25 per cent.) of the aromatic series of coal tar with the group formula $C_nH_{2n-3}(OH)$ " is not declared, neither is the amount of boric acid stated, while the "*et cetera*" suggests the presence of other medicinal constituents, which are not named. In the letter of submission the phenol coefficient was given as 1.4 and the toxicity as 4 per cent. Enclosed with this letter, however, was a report which showed the toxicity to be 15 per cent. as compared with phenol.

The bottle containing the tablets has the name "Bi-Taride" blown in the glass while the carton containing the bottle bears the following recommendations:

"For fresh wounds, cuts, burns, bruises, boils, carbuncles, ulcers, erysipelas, gangrene, diseases of the scalp, vermin and in cases of infection and suppuration; destroys all germs of contagious and infectious diseases."

"Vaginal Douche, Useful in Leucorrhoea and other female disorders, allays inflammation, prevents contagion . . ."

Reliance on a germicidal preparation in such affections as erysipelas, gangrene and leukorrhea is likely to lead to harm,

and advice to this end is pernicious. The Council voted that Bi-Taride Tablets be held ineligible for New and Nonofficial Remedies in that the composition [of the tablets] is essentially secret (Rule 1); in that the recommendations for their use constitute therapeutic exaggeration and an invitation to the public to depend on them in contagious and other serious diseases (Rules 6 and 4) and in that the combination of coal-tar derivatives with "Boric Acid, etc.," is irrational. After submission of this report to the Germicidal Products Corporation the Council authorized its publication.

SULFURYL MONAL

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 16, 1916, p. 894

Sulfuryl Monal is said to be manufactured by Monal Frères, manufacturing chemists of Nancy, France. It is sold in the United States by George J. Wallau, Inc., New York City. According to the label:

"Each Pastille {	Contains: Sulfuryl (combined polysulphurets)
	= 0.35 centigr."
	Liberates: Nascent sulphuretted Hydrogen
	= 2 cub. cent."

The Chemical Laboratory of the American Medical Association was requested to check the amount of available hydrogen sulphid. An original bottle of Sulfuryl Monal was used; this contained tablets having the taste of licorice extract and an odor of hydrogen sulphid. The tablets were found to liberate about 6 c.c. hydrogen sulphid to each tablet.

Among the claims made for the preparation are:

"Dissolved by the saliva, Sulfuryl Monal reaches the stomach where, under the influence of the gastric juice, it generates nascent sulphuretted hydrogen. Professor Albert Robin's remarkable researches have proven that it is in the nascent state that drugs produce the greatest effect with the smallest dose. . . . Being thus eliminated by the entire respiratory tract: the lungs, bronchi and the throat, the sulphuretted hydrogen passes from the interior to the exterior, that is to say, goes right through these organs which are, as a consequence, thoroughly cleansed, antiseptized and freed of the pathogenic micro-organisms. . . . Then again, part of the sulphuretted hydrogen, liberated in the stomach, is eliminated by the mouth and acts as an antiseptic and disinfectant of the mucous membranes of the throat and mouth. Hence Sulfuryl Monal is a perfect protective agent against contagious diseases. . . . Numerous clinical tests have demonstrated its real efficacy in diseases of the throat and of the respiratory tract: laryngitis, pharyngitis, hoarseness, granulations, tonsillitis, colds, bronchitis, pulmonary catarrh, asthma, emphysema, grippe, whooping cough, simple and infectious pneumonia, and in the first stage of pulmonary tuberculosis."

The sulphids are practically ignored in modern textbooks. There is a rather extensive clinical literature on the subject, particularly in connection with sulphur waters; this, however, offers no good evidence for the therapeutic value of sulphids. Probably the tradition in their favor is largely due to the old popular idea that a disagreeable taste or odor is a mark of a good remedy.¹

When hydrogen sulphid is introduced into the body, the small amounts that appear in the expired air are insufficient for quantitative demonstration and it is highly improbable that the amount thus excreted has any germicidal action, or that enough is excreted in the lungs to cause irritation and a reaction. The claim that Sulfuryl Monal is "a perfect protective agent against contagious diseases" is unwarranted; the recommendation for its use in "simple and infectious pneumonia, and in the first stage of pulmonary tuberculosis" is dangerous and vicious. The Council declared Sulfuryl Monal ineligible for New and Nonofficial Remedies and authorized publication of this report.

[EDITORIAL NOTE.—With one exception, this product does not appear to be advertised in medical journals. We find, however, in the gallery of nostrums that grace the advertising pages of the *International Journal of Surgery*, that Sulfuryl Monal has its place. According to an advertisement that has been running some months in this publication, "affections of the throat and respiratory organs respond promptly" to Sulfuryl Monal whose "effects are rapid and certain" even in "incipient tuberculosis." This preposterous pronouncement is no worse than many others appearing in the same journal, but it is bad enough to indicate how uncritical must be the physicians who support—by subscription or contribution—publications that are still debasing scientific medicine.]

MARK WHITE GOITER SERUM AND MARK WHITE IODINIZED OIL

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 23, 1916, p. 967

The "Mark White Goiter Serum Laboratories" of Chicago asked the Council to consider its products "Mark White Goiter Serum" and "Mark White Iodinized Oil." The "serum" was claimed to be an "antibody blood serum from a goat with thyroidosis" while the "Iodinized Oil" was said

1. Liquid Sulphur — Sulphume, THE JOURNAL A. M. A., Dec. 2, 1911, p. 1853.

to contain "about 4 grains of iodine" to "each c.c." The therapeutic indications for the treatment were given as:

"Simple or Exophthalmic Goiter, Hyperthyroidism-dosis, Thyrosis, Thyroidosis, Thyrotoxicosis, Dementia."

An ampule (2 c.c.) of the "serum" is to be injected into the thyroid to be followed one week later by an ampule (2 c.c.) of the "Iodinated Oil." Repetition of this "treatment" once or twice a month is advised.

The Council asked for more specific information as to the composition of the remedies, particularly as to the preparation and nature of the serum; it also asked for evidence of the therapeutic value of the preparations. In reply, Mark White wrote:

"All that I can say regarding the serum is that it is made from the blood of goats with thyroid affection, and it has been found that the serum from these goats has antibodies which control, or has curative effect upon thyroid affections when injected into thyroid glands of either humans or animals. As to the iodinated oil, it is only an adjunct or side treatment which is not always used or indicated, and will only be furnished to the physician for use in case in his judgment his patient needs it. We shall also advise the use of quinine . . . when indicated. . . ."

The Council was referred for further information to a paper by Rachel Watkins, M.D., published in the *Illinois Medical Journal*. It is to be noted, incidentally, that the letter-heads used by White in this correspondence bore in one corner the notation "Rachel Watkins, M.D., Practice Limited to Goiter and Other Disorders of the Thyroid Glands," and in the other, "Mark White, Goiter Research."

The information regarding the composition of this goiter treatment, as furnished in Dr. Watkins' paper, was to this effect:

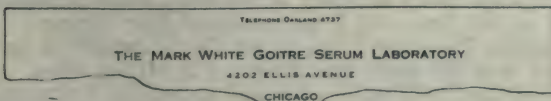
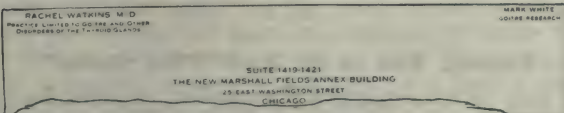
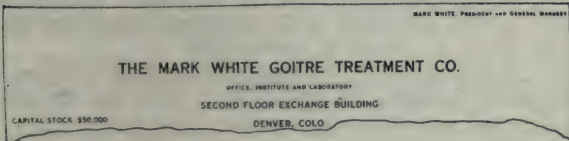
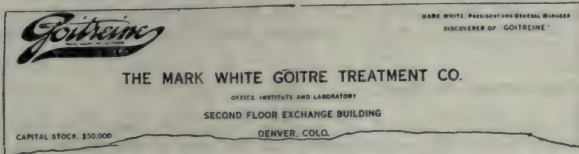
"The medical treatment consists of the administration of a blood serum derived from a thyroidized goat. Formula: Iodine 0.16 grams [according to a correction by Mark White, this should read 0.26 gm.], oil 0.25 c.c., serum q. s. 1 c.c."

This description of the treatment differs from that furnished to the Council by Mark White in that here the iodine and oil appear to be combined with the serum. Dr. Watkins' "formula" implies that the iodine is a routine medication, thus contradicting White's statement, which, in turn, is at variance with the statements made in submitting the treatment.

The Council does not accept any biologic product until its sale in interstate commerce has been authorized by the secretary of the treasury in accordance with the federal law

regulating the sale of viruses, serums, toxins and analogous products. The sale of the Mark White Goitre Serum has not been so authorized; consequently even if the preparation complied with other rules of the Council it could not be accepted.

In addition, however, this treatment conflicts with other Council rules. The statements regarding its composition are



Photographic reproductions (greatly reduced) of some of the letter-heads used by the Mark White concern during the past five years.

indefinite and contradictory (Rule 1); the evidence presented to support the therapeutic claims is insufficient in itself and does not appear to have been checked, by any disinterested authority (Rule 6). Moreover, the recognized variation in the morphology and pathology of the types of goiter render it impracticable to treat cases of goiter by any routine procedure.

The foregoing report was submitted to the Mark White Goiter Serum Laboratory. In reply, a letter signed "Mark White, V.M.D.," was received, which read, in part:

" . . . we hope at some future time to be able to give you more detailed information, but as you possibly appreciate that we have experienced for some time a demand on the part of many physicians that we furnish to them our therapy, which necessitates us furnishing it before all the detail work has yet been accomplished, and I trust that you will be so kind as to bear patiently with us until we are better in a position to make a complete scientific application and report to you."

White wrote further:

"The serum and iodized oil may be mixed for immediate use, but could not be put up only separate for the use of the profession and the therapy furnished Dr. Watkins she mixed as used."

This statement throws no light on the discrepancies in the statements with regard to the place of the iodized oil in the treatment, namely: (a) the original statement that the oil was to be given a week after the serum; (b) White's statement (quoted earlier in this report) that the oil "is only an adjunct or side treatment" and "is not always used or indicated"; (c) the statement in Dr. Watkins' paper that the oil and the serum are given in combination.

The Council declared the Mark White Goiter Serum and Mark White Iodized Oil ineligible for New and Nonofficial Remedies and authorized publication of this report.

Editorial Note on the Mark White "Serum"

As some of our readers will remember, on April 26, 1913, THE JOURNAL called attention to the Mark White preparation which at that time was being exploited from Denver. The Propaganda Department has in its files a number of letters sent out from the Mark White concern at various times. One mailed in May, 1911, on the embossed stationery of "The Mark White Goiter Institute," Exchange Building, Denver, was evidently a general letter sent to physicians, calling their attention to "the most important medical discovery of the age." "Dr. Mark White, a graduate of the University of Pennsylvania," said the letter, had discovered "a simple and harmless remedy" that would cure goiter. "Because of the desire to preserve the secrecy of this remedy it is given only at the office here." It was then suggested that the doctor might send those of his patients who were suffering from thyroidism to the "Mark White Goitre Institute." If he

COUNCIL REPORTS

would do so he would be "given a commission of \$10, in cases of the \$50 fee with the additional \$5 for each \$50 increase." It closed with some casuistic arguments, presumably for the purpose of overcoming the physician's scruples, summing up the matter with the statement:

"No right thinking man will allow a narrow and self-seeking system of ethics to stand between him and his duty to the sick and suffering."

About 1912 the name of the concern seems to have been changed, for we have in our files a letter addressed to a layman on the stationery of the "Mark White Goitre Treatment Company." According to this letterhead the product this concern had for sale was "Goitreine" discovered by Mark White, "President and General Manager." Mr. White's letter to the sufferer from goiter assured him that if he would take "Goitreine" he might "be practically sure of an immediate and permanent cure." "Goitreine," according to White, "has absolutely and permanently cured 90 per cent." of all cases of goiter in which it has been used—"and the other ten showed remarkable improvement." It was efficacious for all forms of goiter and "cannot possibly harm."

The person who received this assurance might have had his confidence in it shaken had he seen a copy of the *Denver News* for May 23, 1911, in which was reported a case of collapse and death in a woman following an injection given in White's office. The paper stated that the death certificate was signed by one W. A. Gray and gave "fatty degeneration of the heart and goiter" as the cause of death. Gray, it seems, was the licensed physician employed by Mark White to administer "Goitreine"—if that is what White happened to be calling his product at that time. For here it may be stated, parenthetically, that Mark White is not a physician; he is a veterinarian.

In February, 1913, Mark White sent a circular letter to a number of medical publications with the request that it be printed in full in the next issue, "to cover one*full page of space." The letter White wanted printed was addressed to doctors offering to "enter into a copartnership agreement" with such physicians who would be willing to treat "patients with goiter affections on a 50 per cent. commission basis."

"You would be expected to make a cash charge to the patient for the treatment, remitting on the same day our 50 per cent. to us, when ordering the treatment, giving the treatment in no cases for less than \$50.00."

About the same time that Mark White made this "fifty-fifty" offer, he sent in an advertisement to be published in

the classified column of *THE JOURNAL*. At that time he was told his advertisement was not acceptable; we now reprint it, however, free of charge. Here it is:

"WANTED—ONE OR MORE PHYSICIANS in each vicinity to administer and represent our new medical treatment for GOITER. Good margin of profit. Write for copy of contract. The Mark White Goitre Treatment Co., Denver, Colo."

In 1914, White moved to Chicago. At least the card which we reproduce so indicates. At that time, as will be seen, "Dr. Mark White" was "personally associated" with Peter S. Clark, M.D. According to the same card Dr. F. D. Paul of Rock Island, Ill., seems to have been his "associate" for that particular-locality. In this connection, it is worth noting

ENTS A WEEK—SUNDAY MORNING. SEPT	
DR. MARK WHITE'S	
NEW GOITRE TREATMENT	
is acknowledged today by those who first doubted its permanency, to be one of the greatest medical discoveries of the age. The results obtained not only	are permanent, but miraculous. The treatment is given by a licensed physician. Write or call for particulars. Office 203 Exchange Bldg., Denver.

When exploited from Denver the Mark White "goiter cure" was advertised in the daily papers. Here is a photographic reproduction (reduced) of an advertisement that appeared in the *Denver Post*, Sept. 1, 1912.

that a Rock Island paper, in one of its issues during July, 1913, devoted a good deal of space to "Dr. Mark White" who was at that time in Rock Island "directing Dr. Frank D. Paul in the administering of the treatment." There was nothing to indicate that this notice was an advertisement or that the editorial appearing in the same issue puffing White's "important cure," was paid for.

Dr. W. A. Gray, who has already been mentioned as White's associate in Denver, seems to have been doing business in Illinois some time in 1913 and a Princeton (Ill.) paper had some uncomplimentary things to say about him. Finally in July, 1913, this item appeared in a Princeton paper.

"Dr. W. A. Gray, the goiter specialist who operated last winter at Princeton and Walnut until he became embroiled with Dr. Mark White,

a Denver veterinary and originator of the cure, over a division of the spoils, has opened a goiter institute in Chicago under his own name. Advertisements of the Dr. Gray Goiter Institute appeared Sunday morning in the Chicago *Examiner* and other morning papers. Dr. Gray and Mark White broke off their relations after their disagreement at Walnut, and Dr. Gray slightly changed the ingredients of the goiter cure and started off on his own hook."

One of Gray's advertisements in Chicago newspapers made the claim that "Dr. Gray's New Medical Treatment removes the cause of goiter in seven days."

The Tulsa (Okla.) associate of "Dr." White seems to have been Dr. J. H. Morgan and the Tulsa papers of June, 1914, tell of "Dr." White's visit to that city "for the purpose of instructing Dr. J. H. Morgan in the technique of his new

**MARK WHITE'S ORIGINAL TREATMENT FOR
SIMPLE-EXOPHTHALMIC
GOITRE AND HYPERTHYROIDISM**

DR. MARK WHITE

HOME OFFICE AND
PERSONALLY ASSOCIATED WITH
PETER S. CLARK, M. D.
925 MONROE BUILDING
104 SOUTH MICHIGAN AVENUE
MONROE AND MICHIGAN
HOURS BY APPOINTMENT
3 TO 4 P. M.
PHONE RANDOLPH 1138
CHICAGO, ILL.

ASSOCIATED, BY APPOINTMENT ONLY, WITH
F. D. PAUL, M. D., ROCK ISLAND, ILL.
W. B. LEE, M. D., NASHVILLE, TENN.
C. O. RICE, M. D., DENVER COLO
J. H. MORGAN, M. D., TULSA, OKLA.
AND OTHERS

Photographic reproduction (reduced) of the "professional" card used by "Dr. Mark White" after he came to Chicago.

medical treatment for nervous disorders and goiter." Some months later—in December, 1915—the following little item appeared in a Tulsa paper:

"Dr. Mark White was found guilty in the county court yesterday of practicing medicine without a license and was fined \$50. Doctor White is a goiter specialist."

In September, 1915, Mr. Thomas S. Hogan, the efficient counsel for the Illinois State Board of Health, instituted action against Mark White for practicing medicine without a license. The case was tried Oct. 15, 1915, and the jury, after being out four hours, returned a verdict of "not guilty." Attorney Hogan attributes the failure to obtain a conviction

to the testimony of Dr. Rachel Watkins who said she had a partnership arrangement with White in carrying on the medical business. It was about this time that Mark White seems to have issued some new letterheads. These bore in their upper left hand corner the device "Rachel Watkins, M.D., Practice limited to Goiter and Other Disorders of the Thyroid Glands," while the upper right hand corner read "Mark White, Goiter Research."

On Dec. 9, 1915, Rachel Watkins, M.D., of Chicago read a paper entitled "A Serum Treatment for Physiologically Defective Thyroids, With Clinical Reports" before the Stock Yards Branch of the Chicago Medical Society. The "serum treatment" discussed was Mark White's "Goitreine" which, in the course of its checkered career, had lost its original name by the wayside. This paper appeared in the December, 1915, issue of the *Illinois Medical Journal*.

Probably emboldened by the ease with which a component part of the American Medical Association "fell for" a paper exploiting a "goiter cure," Dr. Watkins requested that she be permitted to read a paper on the same subject before the Section on Pharmacology and Therapeutics at the Detroit meeting of the American Medical Association last June. The request was refused. Dr. Watkins is apparently no longer connected with White and in fact has protested against the use of her name by White in connection with his "goiter cure."

[After the above was in type and ready for the pages of THE JOURNAL, attention was called to the *Official Bulletin of the Chicago Medical Society* of Sept. 16, 1916. This *Bulletin* contained a full page advertisement of the Mark White "goiter cure." The advertiser referred to the preparation as having been "announced to the Chicago Medical Society" and declared it to be "an ethical therapeutic agent." Mark White was described as "a medical research student" but no hint was given that he is a veterinarian. After again emphasizing that "this therapy is ethically proven" physicians were invited to "visit our goats when convenient" and the advertisement closed with the modest claim that "this thyroid therapy has equal curative therapeutic value in these cases as quinin in malaria." And this sort of pseudo-scientific claptrap is presented to a presumably learned profession through its own official *Bulletin*—but what's the use of commenting!]

KORA-KONIA

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 30, 1916, p. 1034

Kora-Konia is a "dusting powder" which at present is advertised to the medical profession through medical journals, circulars, post cards and sample packages. It is put out by the "House of Mennen," which sells various toilet preparations such as talcum powder, shaving soap, etc. On the trade package is the statement:

"Indicated in the treatment of Acne, Dermatitis, Eczema Intertrigo; in obstinate cases of chafing, prickly heat, nettle rash, chicken pox, measles, scarlatina and irritations of the skin; as a soothing absorbent and antiseptic dusting powder and as an umbilical dressing."

While a circular asserts that:

"Kora-konia is indicated in the treatment of acne, dermatitis, eczema and eczematous conditions of the utmost severity, . . . eruptive fevers, . . ."

What purports to be a physician's testimonial reads:

"I used Kora-Konia in a new born case of inherited syphilis and the eruption soon cleared up."

Germicidal powers are claimed for Kora-Konia in a medical journal advertisement. In view of the various claims made and the fact that it is advertised to the medical profession, the Chemical Laboratory of the American Medical Association was asked to analyze Kora-Konia. This was done and the chemists reported as follows:

LABORATORY REPORT

Kora-Konia is a white powder, slightly greasy to the touch. Qualitative tests showed the presence of boric acid, zinc, magnesium, a solid fatty acid and material insoluble in hydrochloric acid containing magnesium and aluminum. Starch was not found. Quantitative determinations gave the following results:

Acid-insoluble material (talc).....	48.3 per cent.
Magnesium (Mg^{++}) soluble in dilute acid...	1.2 per cent.
Zinc (Zn^{++})	4.5 per cent.
Stearic acid (impure).....	39.2 per cent.
Boric acid	3.0 per cent.
Carbon dioxide (CO_2).....	1.5 per cent.

From this analysis it is concluded that Kora-Konia has essentially the following composition:

Zinc stearate U. S. P.....	44 per cent.
Talc	48 per cent.
Magnesium carbonate U. S. P.....	5.0 per cent.
Boric acid	3.0 per cent.

Essentially this dusting powder consists of the well-known substances talc and zinc stearate in about equal proportions to which small quantities of magnesium carbonate and boric acid have been added. Inasmuch as the claim is made, by inference at least, that Kora-Konia represents original investigation carried out "with the cooperation of the medical profession" it should be stated that the preparation of commercial zinc stearate was described and recommended as a dusting and toilet powder nearly twenty-five years ago.¹

There is nothing new or original in any one of these substances or in the combination. The extravagant and unwarranted claims made for this simple dusting powder are undoubtedly leading the public, as well as some thoughtless physicians, to place undeserved confidence in it. In view of the small amount of boric acid present in the powder, its antiseptic powers must be slight and its germicidal powers almost nil. The Council declared Kora-Konia ineligible for New and Nonofficial Remedies and authorized publication of this report.

THE THERAPEUTIC VALUE OF THE GLYCEROPHOSPHATES

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Sept. 30, 1916, p. 1033

The Council has adopted the following report and authorized its publication.

W. A. PUCKNER, Secretary.

Glycerophosphates are the salts of glycerophosphoric acid, $H_2[C_6H_5(OH)_2]PO_4$. This acid is produced by the interaction of glycerin and phosphoric acid. In general, only sodium glycerophosphate, $Na_2[C_6H_5(OH)_2]PO_4 + 5\frac{1}{2}H_2O$, and calcium glycerophosphate, $Ca[C_6H_5(OH)_2]PO_4 + H_2O$, are used in medicine, though the glycerophosphates of lithium, potassium, manganese, magnesium, iron, quinin and strychnin are claimed as constituents of proprietary preparations. At a time when certain disorders were assumed to be due to a deficiency of phosphorus in the nerve structure in the body, glycerophosphates were introduced as "nerve foods" and "tonics" on the theory that they would be assimilated more readily than hypophosphites or ordinary phosphates. What led to this assumption was the fact that the lecithins, which form a part of the nerve structure, were known to contain the glycerophosphate radical in the molecule. The belief that inorganic phosphates cannot supply the body's need of phosphorus is implied or expressed in most of the "literature" devoted to proprietary phosphorus preparations.

Thus, Schering and Glatz quote G. Meillière as saying that "the organism is incapable of assimilating inorganic forms of phosphorus."

Again, when exploiters of glycerophosphates admit that the body can synthesize its phosphorus compounds from inorganic phosphates, they attempt to counterbalance the admission by contending that the use of organic compounds "spares" the system the necessity of making such synthesis. This assumption rests on the theory that the organic phosphorus compounds are absorbed and stored as such.

This theory is contradicted by evidence which has been presented¹ that the organic phosphorus compounds are split up into inorganic phosphates before absorption.

The Council requested E. K. Marshall, Jr., to review the evidence for and against the therapeutic value of organic phosphorus compounds. Marshall's study² brings out the following points:

1. In various tissues of the animal body, enzymes have been found which hydrolyze complex organic phosphorus compounds so as to liberate the phosphorus in the form of inorganic phosphates.

2. Metabolism studies of the phosphorus balance with diets containing inorganic phosphorus compounds, as compared with diets containing organically bound phosphorus, are somewhat conflicting in their results. The balance of evidence, however, is in favor of the view that there is no difference between organically combined phosphorus and inorganic salts with respect to the phosphorus balance.

3. Experiments indicate that the organism thrives on and supplies its phosphorus needs quite as well from inorganic phosphorus compounds as from organically bound phosphorus.

Marshall concludes:

"We see that the evidence is very convincing of the view that the animal organism can synthesize its complex organic phosphorus constituents from inorganic phosphates, and that organic phosphorus is of no more value as a food than inorganic."

In view of this report, the Council deemed it advisable to take up the consideration of certain glycerophosphate preparations on the market. As the therapeutic claims are all similar, it is not necessary to quote them extensively.

1. McCollum and Hart, Grosser and Husler, Plimmer, and Bayliss and Plimmer, quoted by Marshall (Note 2).

2. Marshall, E. K.: The Therapeutic Value of Organic Phosphorus Compounds, *THE JOURNAL A. M. A.*, Feb. 13, 1915, p. 573.

TONOLS (SCHERING'S GLYCEROPHOSPHATES)

Tonols (Schering and Glatz, New York) comprise iron, lime, lithium, magnesium, manganese, potassium, quinin, sodium and strychnin "Tonols" or glycerophosphates; also Duotonol Tablets, said to contain equal parts of calcium and sodium glycerophosphates; Triotonol Tablets, each said to contain "Sodium Tonol $2\frac{1}{2}$ grains, Lime-Tonol $2\frac{1}{2}$ grains, Strychnine-Tonol $\frac{1}{60}$ grain"; Quartonol Tablets, said to contain "Sodium and Lime-Tonols, each $2\frac{1}{4}$ grains, Quinine Tonol $\frac{1}{2}$ grain, Strychnine-Tonol $\frac{1}{200}$ grain"; Sextonol Tablets, said to contain "Sodium and Lime-Tonols, each 2 grains, Iron-Tonol, $\frac{1}{2}$ grain, Manganese and Quinine-Tonols, each $\frac{1}{4}$ grain, Strychnine-Tonol, $\frac{1}{200}$ grain."

The name "Tonols" is objectionable in that it is not only nondescriptive of the composition but also therapeutically (and falsely) suggestive. The composition of the more elaborate Tonols is particularly unscientific; there is no justification for combining quinin, strychnin, iron, manganese, etc., in one formula.

PHOSPHORCIN COMPOUND

Phosphorcin Compound, called "The Elementary Phosphorus indicated in all forms of Nervous Diseases" and the "Perfect Formula," is said to be manufactured by the Organic Products Company, Wetzlar an der Lahn, Germany, and Greenwich, Conn. It is sold in the United States by Eimer and Amend, New York, according to whom:

"Each two fluidrachms contain:

"Acidulated Bone Phosphor O. P. Co.....	2	grains
"Calcium Glycerinophosphate, Merck & Co.....	$1\frac{1}{2}$	grains
"Magnesium Glycerinophosphate, Merck & Co....	$1\frac{1}{2}$	grains
"Sodium Glycerinophosphate, Merck & Co.....	$2\frac{1}{2}$	grains
"Lactated Pepsin	2	grains
"Ignatia Extract	$\frac{1}{20}$	grain
"C. P. Glycerin (Special Process) O. P. Co....	50%	

"Acidulated bone phosphor" presumably is acid phosphate of calcium. This formula is an unscientific shotgun combination.

ROBINOL

Robinol, manufactured by John Wyeth and Brother, Philadelphia, is called a "Universal Tonic." It is said to be:

"A preparation of the glycerophosphates of lithium, calcium, sodium, iron, manganese, quinine, with 1-16 gr. strychnine glycerophosphate in each fluidounce."

This is a semisecret preparation, since the quantities of most of the ingredients are not given and the vehicle is not named. This complex combination, too, is unwarranted.

PHOSPHOGLYCERATE OF LIME (CHAPOTEAUT)

This is said to be prepared by the Laboratoires de Pharmacologie Générale, Dr. Ph. Chapelle, Paris and New York. It is sold in this country by E. Fougera and Co., Inc., New York. It is offered in several forms, especially in that of wine, which is called the "Medicinal Wine and Tonic Par Excellence." The alcohol is no doubt the constituent to which this preparation is indebted for such popularity as it has attained, for it is much more freely advertised than the syrup, capsules or granulated form. The usual claims are made with regard to the efficacy of calcium glycerophosphate "during convalescence, in cases of enfeebled vitality, and nervous affections associated with an excessive elimination of phosphates."

ELIXIR GLYCEROPHOSPHATES, NUX VOMICA AND DAMIANA

This is manufactured by Sharp and Dohme, Baltimore. The manufacturers' statement of composition is:

"Each fluidounce represents Nux Vomica 8 grains, Damiana 64 grains, combined with Glycerophosphates of Calcium and Sodium."
"Alcohol 20 per cent."

Sharp and Dohme call this mixture a "Reconstructive, Nerve Stimulant, Aphrodisiac," and claim that:

"Phosphorus in elemental form has long been prescribed under the title of Elixir Phosphorus, Nux Vomica and Damiana, but due to the rapidity of chemical change occurring in preparations containing this form of Phosphorus, much of the Physiologic action is lost. The Glycerophosphates present Phosphorus in its most available form—the form in which it exists in the brain and nervous system. They powerfully stimulate the functions of nutrition and are rapidly assimilated by the system.

"Nux Vomica is a general Nerve Tonic. Damiana exerts a stimulant effect upon the sexual appetite and function."

The claim that the glycerophosphates may be substituted for elementary phosphorus is, at least, novel.

The elixir is an unscientific semisecret combination.

RECOMMENDATIONS

All of the preparations mentioned violate Rule 6 (unwarranted therapeutic claims). In addition, Robinol and Elixir Glycerophosphates, Nux Vomica and Damiana violate Rule 1 (secrecy of composition) in that not all the quantities of the ingredients are declared; Tonols, Phosphorcin Compound and Robinol violate Rule 8 (objectionable names). It is recom-

mended that the Council endorse Marshall's findings² and declare that Tonols (Schering and Glatz), Phosphorcin Compound (Eimer and Amend), Robinol (John Wyeth and Brother), Phosphoglycerate of Lime Chapoteaut (E. Fougere and Co.), and Elixir Glycerophosphates, Nux Vomica and Damiana (Sharp and Dohme) are ineligible for New and Nonofficial Remedies.

HYDRAS

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Oct. 7, 1916, p. 1107

Hydras, sold by John Wyeth and Brother, Philadelphia, is one of the many proprietary, so-called "uterine tonics." It is said to contain "Cramp Bark, Helonias Root, Hydrastis, Scutellaria, Dogwood and Aromatics," but as the amounts of the several ingredients are not given the statement regarding its composition is valueless. The label declares the presence of 24 per cent. alcohol.

The name "Hydras," taken in connection with the statement of composition, would suggest that hydrastis (golden-seal) is an important constituent. The report of the Chemical Laboratory of the American Medical Association, however, indicates that hydrastis is present in unimportant amounts:

"The hydrastin content of Hydras was determined by extraction with immiscible solvents (*Pharm. Review*, May, 1908, p. 132). Twenty-five c.c. was found to yield an alkaloidal residue of 0.0160 gm. The preparation contains, therefore, not more than 0.064 gm. 'hydrastin' per 100 c.c. Inasmuch as hydrastis is required to contain about 2.5 per cent. 'hydrastin,' hydras contains an equivalent of not more than 2.56 gm. hydrastis (golden seal) in 100 c.c. and the stated dose of Hydras—one dessertspoonful (8 c.c.)—represents not more than 0.2 gm. or $\frac{1}{40}$ of the U. S. P. average dose of hydrastis."

The label of a recently purchased bottle of Hydras bears the following recommendations for its use:

"Indicated in treatment of Dysmenorrhea, Menorrhagia Anti-Abortive, with anodyne and tonic properties."

"For dysmenorrhea, suppressed menses, etc., a dessertspoonful three times daily, before or after meals."

"To relieve pain due to uterine disorders, a dessertspoonful every three hours, or increased to a tablespoonful, at the discretion of the attending physician."

A circular wrapped around the bottle declares that Hydras is:

"A valuable preparation to the physician in the treatment of dysmenorrhea, colic, cramps, spasm, palpitation incident to pregnancy, and the various pains resulting from diseases of the female sexual organs."

It is further claimed that:

"In the dysmenorrhea of young girls due to some mechanical difficulty, as antelexion or of a congestive character, of suppressed menses from exposure to cold and other causes of a similar character, Hydras will prove efficient and can be administered freely without danger."

The value of hydrastis in the treatment of the diseases and conditions mentioned is problematical at best, and the small amount present in Hydras is wholly useless. As for the other constituents, cramp bark (*Viburnum opulus*), helonias (false unicorn—*Chamaelirium luteum* or *Helonias dioica*) and scutellaria (skullcap—*Scutellaria lateriflora*) are drugs which are practically ignored by most writers on materia medica and therapeutics.¹ Dogwood (*Cornus florida*) is a mildly astringent aromatic bitter for the use of which there is no scientific evidence.²

To sum up: Of the five ingredients of Hydras (aside from alcohol and aromatics), one (hydrastis), which apparently gives the preparation its name, is present in unimportant amounts; three (cramp bark, helonias and scutellaria) are therapeutically unimportant; the fifth (dogwood) has never been shown to have any specific action on the uterus. The potent constituent, therefore, appears to be the alcohol.

But, even if every one of the several drugs said to be contained in Hydras were possessed of distinct therapeutic properties, and if each were present in known and therapeutically active amounts, still the combination in fixed proportion would be irrational. No one could foresee the joint effect of the five drugs in the several conditions for which the mixture is advertised. Hydras is evidently meant to appeal to the thoughtless and to be used at random; witness the suggestion made in the advertising that

"Owing to its palatability, it is acceptable to patients with impaired digestion, and will serve as a stomachic tonic, promoting appetite and digestion."

A useless alcoholic nostrum "administered freely" to women and girls is as dangerous as the recommendation for such administration is reprehensible.

1. See reports of the Council, THE JOURNAL, Jan. 9, 1915, p. 165; Jan. 23, 1915, p. 359; Nov. 27, 1909, p. 1836; March 27, 1915, p. 1093.

2. See Reports Council Pharm. and Chem., 1912, p. 36.

This preparation is semisecret. The recommendations for its use in specified diseases which appear on the label and in the advertising accompanying the bottle are sure to lead to its ill-advised use by the public. The claims made for its curative properties are exaggerated and unwarranted. The name, in view of the small content of hydrastis, is misleading. Finally, the combination of five drugs, even if individually they were of therapeutic value, is irrational. Hydras, consequently, is inadmissible to New and Nonofficial Remedies for conflict with Rules 1, 4, 6, 8 and 10, and publication of this report is authorized.

[EDITORIAL COMMENT.—Products like “Hydras” are the bane of scientific medicine. The physician who prescribes them could with just as much reason prescribe any of the various alcoholic “patent medicines” of the “women’s tonic” type. In fact, his patients would be running less risk of contracting the alcohol habit if he prescribed the “patent medicines” as these nostrums usually have less alcohol than is contained in their “ethical” prototypes—and alcohol is the only really important drug in practically all of them. Whatever one may think of reputable pharmaceutical houses who put out products of the “Hydras” type, the fault really lies with the profession which tolerates such therapeutic monstrosities.]

TOXINOL

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Dec. 2, 1916, p. 1687

Toxinol is a “syphilis remedy” marketed by the Hawes Chemical Company, Louisville, Ky. It is a shotgun mixture of the “patent medicine” type characteristic of the days when syphilis was treated with a haphazard mixture of iodids, mercury and vegetable “alteratives.” The following statement of composition is given by the company:

“Each fluid ounce contains the active principles of:

Stillingia	8 gr.
Burdock	8 gr.
Poke	8 gr.
Berberis Aquifolium	8 gr.
Cascara Amarga	8 gr.
Prickly Ash Bark	2 gr.
Trifolium Pratense	16 gr.
Potassium Iodid	16 gr.
Hydrargyri Bi Chlorid	$\frac{1}{8}$ gr.”

Among the many misrepresentations and unwarranted claims and assertions made for Toxinol are:

"When the iodids are given in combination with the vegetable alteratives they agree with the stomach and do not derange the secretions."

"... the amount of the iodid of potassium, and of the bichlorid is comparatively small. This is in accord with the spirit of modern therapeutics, which aims to give moderate amounts that are readily absorbed. It is a well recognized fact that large doses of iodid of potassium become intolerant to the patient if taken in large dosage, but those drugs in small dosage, especially if combined with vegetable alteratives, readily produce the most satisfactory results."



TOXINOL

INDICATED IN ALL STAGES OF

SYPHILIS.

FORMULA:

<i>Stillingia, Burdock, Poke, Berberis, Cascara ...</i>	<i>aa gr. viii.</i>
<i>(Amarga)</i>	<i>gr. ..</i>
<i>Prickly Ash</i>	<i>gr. xvi.</i>
<i>Trifolium</i>	<i>gr. xvi.</i>
<i>Ppt. Iodid</i>	<i>gr. ..</i>
<i>Hydrargyr. Bi Chlorid</i>	<i>fl. oz. i.</i>
<i>Aromatic Elixir Corn Syrup</i>	<i>fl. oz. i.</i>

Put up in eight ounce plain amber
bottles, label easily removed.

A Sample Bottle Sent to Physicians on Request

HAWES CHEMICAL CO.
1501 WINTER AVE.
LOUISVILLE, KY.

Reproduction (reduced) of a card being sent to physicians by the exploiters of Toxinol.

"An examination of this formula and a trial of the preparation will convince you of its effectiveness in the treatment of Tertiary Syphilis in whatever form it manifests itself."

"We point out the formula as being at once a scientific blending of all the agents known as valuable in tertiary syphilis, and one that will give the desired specific as well as tonic effect."

The Council holds "Toxinol" ineligible for New and Non-official Remedies because it is an irrational combination of

drugs marketed under a name that is nondescriptive of its composition and with unwarranted and misleading claims.

[EDITORIAL NOTE.—It is strange that products of the type of Toxinol still seem to appeal to certain physicians. It might be expected that in the treatment of a disease like syphilis unscientific mixtures of the "patent medicine" type would no longer find favor among scientifically trained physicians. The fact that the manufacturers of Toxinol are spending money circularizing the profession indicates that the number of uncritical physicians is by no means negligible.]

BROMIN-IODIN COMPOUND

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Dec. 23, 1916, p. 1956

"Bromin-Iodin Compound," according to the Bromin-Iodin Chemical Company, San Diego, Calif., has the following "formula":

Iodin	Gr. 1
Bromin	Gr. $\frac{1}{4}$
Phosphorus	Gr. $\frac{1}{100}$
Thymol	Gr. $\frac{2}{3}$
Menthol	Gr. $\frac{2}{3}$
Sterilized Oil	fl. dr. 1

The only statement regarding its method of preparation is the line "Solution in Cod Liver Oil, Norwegian." According to the promoters "Bromin-Iodin" is:

"A Powerful Anti-Tubercular Agent for Hypodermic Use in Pulmonary and Laryngeal Tuberculosis. Useful in other forms of Tubercular Diseases, and in Non-Tubercular Pulmonary Diseases of a Sub-Acute or Chronic Nature."

The "formula," in the form in which the manufacturers publish it, is either impossible or meaningless, according to the interpretation that may be given. It is impossible if it is intended to indicate the actual composition of the product because that would mean that the oil is alleged to contain free or uncombined iodine, bromine and phosphorus. Both on theoretical grounds and also in the light of the findings of the Chemical Laboratory of the American Medical Association, it is not possible that all these constituents can be present in the free state. The formula is meaningless if it is intended to convey the idea, merely, that iodine, bromine, phosphorus, thymol, menthol and sterilized oil are combined

to form "Bromin-Iodin." In the absence of any details of the method of manufacture, it is futile to attempt to pass judgment on the actual composition of the preparation.

The use of an almost identical product (said, however, to contain only $\frac{1}{2}$ grain iodine to each fluidram) was described in 1908 by Dr. Ingraham of Binghamton, N. Y., in "Five Years Successful Experience with a Special Mode of Treating Pulmonary Tuberculosis." In 1910 THE JOURNAL¹ characterized the preparation as "one of the innumerable 'treatments' for pulmonary tuberculosis that have arisen, had their day and, more or less gracefully, retired." If the preparation had value for the purpose for which it is recommended, its use during these twelve years should have secured its general recognition. There is no satisfactory evidence of its therapeutic efficacy. The Council refused recognition to Bromin-Iodin Comp. and, after submitting this report to the Bromin-Iodin Chemical Company, authorized its publication.

CASTROX

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Dec. 23, 1916, p. 1956

Castrox (The Purdue Newberry Co.) is a castor oil emulsion, claimed to contain castor oil 50 per cent., glycerin 10 per cent. with water and emulsifying agents. The advertised claims are that:

"Castrox is prepared by a unique three day process with special apparatus and is more than 'just an emulsion.' It is a MUTUAL emulsion, for the oil and aqueous solution have been united without 'forcing'. . ."

The rules of the Council declare that: "The use of articles which are unessential modifications of official or established nonproprietary articles is unscientific and serves no useful purpose." The rules further explain: "The application of 'trade names,' protected or not, to official or established nonproprietary products tends to confusion and fosters many abuses."

The Council held "Castrox" to be an unessential modification of an established article, marketed under a proprietary name and with claims which give a false value to a simple castor oil emulsion. It was declared not admissible to New and Nonofficial Remedies.

1. June 4, 1910, p. 1884, reprinted in pamphlet "Consumption Cure Fakes" (price 10 cents), published by the American Medical Association.

IRON CITRATE GREEN

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Jan. 13, 1917, p. 135

H. K. Mulford Company and E. R. Squibb and Sons submitted to the Council ampules containing solutions of iron citrate green. It thus became necessary to consider the eligibility of iron citrate green itself for admission to New and Nonofficial Remedies. As the rules of the Council provide that nonessential modifications of official or nonproprietary preparations will not be recognized, the above named firms were asked to state what advantages, if any, the so-called iron citrate green had over the official iron and ammonium citrate. In reply the H. K. Mulford Company wrote that it had come to the conclusion that iron citrate green and ampules thereof would undoubtedly be considered by the Council as a nonessential modification of an official product, adding:

"It seems to differ from the official ferric citrate so far as essentials go only in color, but custom, which is exceedingly hard to change in South America, demands that this green variety of ampules be used in place of the official product."

In reply to a similar letter of inquiry E. R. Squibb and Sons wrote:

"Iron citrate green (iron and ammonium citrate green) differs from the U. S. P. iron and ammonium citrate in that it contains less iron and more citric acid and more ammonium citrate than does the latter. It is of course a modification of the official salt and is supplied to meet a real demand. Its reaction is quite decidedly acid and our present stock contains Fe slightly below the U. S. P. requirements for iron, assaying 15.74 per cent. instead of 16 per cent. Fe. The tests used to control its quality are those for the official product except as before indicated, it is always acid instead of neutral, as the U. S. P. requires for that salt."

The smaller iron content (98 per cent. of the U. S. P. requirement) of the green variety referred to by E. R. Squibb and Sons is so small as to be negligible. Further, the low iron content as well as the acidity of the green salt would appear to be detriments rather than advantages. Inasmuch as no evidence has been presented to show that iron citrate green is superior in any way to the well-known iron and ammonium citrate the Council held that iron citrate green, and with it the dosage forms, was ineligible to N. N. R.

The preceding report was submitted to the Mulford Company and to E. R. Squibb and Sons for comment before publication. The former firm replied that in the present case

it felt bound to supply the existing demand, the latter replied that, to give the Council its support in this matter, the sale of iron citrate green and ampules thereof would be discontinued.

ASPIRIN.

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Jan. 20, 1917, p. 213

The referee's report on Aspirin-Bayer which follows was submitted to the Council and adopted by it and, in accordance with the referee's recommendation, was sent to the Bayer Company, Inc. The company's reply contained nothing to warrant the continued recognition of this product by the Council. It was accordingly directed that Aspirin-Bayer be omitted from New and Nonofficial Remedies.

W. A. PUCKNER, Secretary.

REFEREE'S REPORT

The referee's attention has been called to the systematic campaign of advertising aspirin to the public. He is informed that tablets have been marketed for some time in "vest-pocket" boxes, bearing the name "Aspirin" permanently affixed, which is in technical conflict with the Council's rule against indirect advertising to the public. More recently, conspicuous advertisements have appeared in daily papers. These are technically in conflict with the rule against direct advertising to the public.

In addition to the plain technical conflicts with the Council's rules there is a feature of the case which has not hitherto been raised and which should be fully considered: It may be remarked that the advertisements contain no therapeutic recommendation, and do not, on their face, urge the public to employ aspirin but apparently merely tell the public how it may protect itself against sophistication. In substance, they say: "If you are a user of aspirin, this is how you may obtain the genuine." It might be said that this is not an attempt to increase the use or sale of aspirin—the ordinary object of advertising—but that the means of protection against adulteration is a "subject on which the public should be instructed." The principle of such exceptions is stated in the comments to Rule 3 (New and Nonofficial Remedies, 1916, p. 15); and although the present case does not come under the exceptions specified under these comments, it may

be urged that the exceptions need to be increased as occasion arises. The notorious adulteration of aspirin may well be urged as establishing a need for a similar exception in its use.

The general principle of protecting the public against fraud, adulteration and substitution is directly in line with the objects of the Council, and deserves commendation and support. It is obvious, however, that the means adopted for this end must be efficient, that they must not open the door to other, perhaps greater evils and that they must be used in good faith. The policy of advertising "Aspirin-Bayer" must be examined in these respects.

In the first place, the acceptance of a product by the Council implies an agreement by the manufacturers or agents that they will adhere strictly to the Council's rules and will not depart from the letter or spirit of these rules without notice to the Council. This principle has been grossly infringed in the present case. There can be no doubt that the agents were aware that their advertisements conflicted, at least with the letter of Rule 3. Nevertheless, they did not, in any way, inform the Council of the change in policy. In this respect, at least, they have not acted in good faith.

Secondly, the wording of the advertisement implies that only the tablets stamped with "The Bayer Cross" are genuine. This is misleading, since every druggist has the right to make unstamped tablets of aspirin, fully as genuine as those stamped with the cross.

Thirdly, the cross itself cannot be considered an efficient protection; for people who imitate aspirin will not hesitate to imitate the stamp. The remedy, in either case, and as with any other drug, is the examination of trade samples, and the vigorous prosecution of those guilty of violating the law.

Fourthly, the permanent affixing of the name "Aspirin" to the vest-pocket boxes is also inefficient as a protection, and serves mainly as an advertisement.

Fifthly, whatever may have been the motives of the advertisers, and however carefully the advertisements are worded, they will inevitably tend to increase the use of aspirin by the public, and this is directly against the interests of public health. The public does not know, as physicians do, that headaches are merely symptoms of other, sometimes very serious conditions; and that they are often the signal for the need of a thorough physical examination and diagnosis. It is true that they are often also the symptoms of very minor derangements, which will right themselves spontaneously; and

that, in such cases, drugs like aspirin may give relief and may do no harm. The patient, however, is not educated to distinguish one class from the other, and therefore anything that tends to promote the indiscriminate use of such remedies as aspirin is detrimental to the public health. Furthermore, aspirin itself is not always harmless. Alarming idiosyncrasies are sufficiently common that the use of the first doses, at least, should require medical supervision. With these considerations in mind, the referee is of the opinion that the direct and indirect advertising of aspirin is to be condemned.

CASTA-FLORA

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Jan. 27, 1917, p. 303.

Casta-Flora is one of those complex preparations which are offered to the medical profession, with plausible arguments in support of the claims made. It is put out by the Wm. S. Merrell Chemical Co., Cincinnati. Each fluidounce is said to represent:

"Castanea, fresh leaves, 40 gr.; Passiflora, fresh plant, 40 gr.; Gelsemium, green tincture, 8 minims; Inula, represented by the camphoraceous stearoptene Helenin, 20 grs.; Iodized Lime, 8 grs.; Menthol, 1-4 grs.; Aromatic Syrup Yerba Santa, 60 minims."

It is said to be:

"A new combination of well-tried remedies of especial value in pertussis and other spasmodic coughs. It is composed of astringent, antispasmodic, sedative and expectorant agents, that control the paroxysms, relieve the irritation, promote expectoration, and give tone to mucous membranes involved."

Still more exaggerated claims are made for the individual constituents of Casta-Flora, partly by direct statement, partly by inference. For example:

"Castanea is almost a specific in whooping cough and other spasmodic coughs.

"Passiflora is a narcotic, sedative and antispasmodic without habit-forming properties, nor does it lock up the secretions and upset digestion like opiates.

"Inula (elecampane) has been employed as a cough remedy in England for centuries. Its action is similar to guaiacol and creosote. Its active principle, helenin, is destructive of tubercle bacilli in dilutions of 1 to 10,000.

"Iodized Lime, Menthol, and Yerba Santa are too well known as expectorants and antiseptics to require more than passing mention."

That Casta-Flora is a "new" combination may be admitted; it is improbable that exactly this combination of obsolete drugs was ever before selected for any purpose whatever, but

the statement is misleading in that no new principle of therapeutics is involved. On the contrary, the combination is just what might be expected from haphazard choosing of discarded and nearly forgotten drugs. It seems incredible that a reputable firm of manufacturing pharmacists would make the positive statement that castanea is *almost* a specific in whooping cough. Why not say it is a specific? It would be about as true. A specific or "almost specific" for this disease would rank among great medical discoveries; but castanea is merely a slightly astringent drug neither better nor worse than scores of other astringent drugs that have been tried, found valueless and discarded.

Hardly less surprising are the statements regarding passiflora. This herb has been on the market about three quarters of a century. Not only has it never established itself in scientific medicine, but it is not even mentioned in modern standard works on therapeutics.

Of all the statements made in the circular perhaps the most remarkable, in that it is so dangerously misleading, is that regarding helenin, the active principle of elecampane. The statement that this principle (helenin) is destructive of tubercle bacilli in dilutions of 1-10,000 can only mean that it is of extraordinary value in the treatment of tuberculosis; in fact, it is definitely stated that the action of elecampane is similar to that of guaiacol and creosote.

It is obvious that any drug which would destroy the tubercle bacilli in the human lungs without exerting a toxic action on the patient would be a great contribution to medicine. But although elecampane may have been used for centuries it has proved to have little, if any, merit, and even the National Standard Dispensatory, p. 848, says: "Elecampane was formerly employed as a tonic, stimulant, diuretic, diaphoretic, expectorant, and emmenagogue, but has now largely fallen into disuse." One looks in vain in the standard textbooks on therapeutics for a description of the uses of inula (or elecampane), and of its so-called "active principle," helenin.

The circular to which reference has been made says, referring to the use of castanea and passiflora in the treatment of whooping cough:

"Gelsemium, when made from the fresh, green plant—as is Merrell's—is an excellent adjuvant to the above drugs, and allays the nervous irritability so frequently present."

H. C. Wood, Jr. (Pharmacology and Therapeutics, 1916, p. 160), says of gelsemium: "Gelsemium was originally employed as an arterial sedative and febrifuge in the malarial

fevers of the South, and subsequently in sthenic fevers. It appears in some way to depress the bodily temperature, but it does not appear probable that any advantage to be derived from it will counterbalance the danger attending its employment in the large doses required. In asthma, spasmodic laryngitis, whooping cough, and nervous cough it has been recommended by Bartholow, but is little used."

That is about as favorable a statement for the drug as is to be found in the textbooks, and it serves to illustrate how little new there is in this mixture of obsolete drugs that Merrell seeks to market as one possessing extraordinary therapeutic value.

Even though the ingredients, or certain of them, were singly useful in the treatment of those conditions for which Casta-Flora is recommended, no one could possibly foresee the effect in any given case of such a jumble of drugs, both active and inert, as is said to be represented in this preparation. The prescribing of such mixtures, the action of which cannot in any way be foreseen, is plain charlatanism.

In addition, the various drugs in Casta-Flora are present in such proportions that the dose of each of the several ingredients bears no relation to the commonly accepted dose.

Casta-Flora is not acceptable for New and Nonofficial Remedies.

EDITORIAL NOTE.—Advertisements of "Casta-Flora" appeared in the following medical journals during 1916:

Medical Record

New York Medical Journal

Lancet-Clinic

Medical Summary

PIL. CASCARA COMPOUND-ROBINS

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Jan. 27, 1917, p. 303

A circular issued by the A. H. Robins Company of Richmond, Va., contains the following statement:

"PIL. CASCARA COMPOUND-ROBINS is a rational therapeutic formula, composed of CASCARA, PODOPHYLLIN, COLOCYNTH and HYOSCYAMUS, which promotes a natural flow of secretions, which is, in turn, the physiologic stimulant of peristalsis. Thus, a normal evacuation is produced without subsequent inhibition.

"They contain no Mercury, Strychnia nor Belladonna.

"An ideal aid to any remedial agent, when a Mild, Medium or Strong alimentary stimulant is needed [*sic*].

"Made in two strengths, the dosage may be easily regulated so as to obtain the effects of an Anti-Dyspeptic, Aperient, Laxative or Cathartic, as desired. They never cause discomfort unless given in larger dose than needed."

This preparation is another example of the innumerable mixtures of well-known drugs having nothing in the way of originality or of special therapeutic value to recommend them.

The advertising implies that this particular combination has a special action on the secretions of the gastro-intestinal tract; otherwise it would be hard to explain the claim that the preparation is antidyspeptic, if that means anything more than a laxative or cathartic.

The claim is made that this preparation contains no belladonna—yet it admittedly contains hyoscyamus! This manifests either ignorance on the part of the manufacturers, or an effort to impose on the medical profession. Both belladonna and hyoscyamus contain variable amounts of similar alkaloids, chiefly hyoscyamin. Hyoscyamus is feebler than belladonna in its action, as it contains less alkaloid. The qualitative differences between the two drugs, with reference to their use as laxatives, is so slight as to make the company's claim for hyoscyamus appear either deliberately misleading or to be the result of crass ignorance. Promoting this mixture of well-known laxatives and cathartics as an "ideal aid to any remedial agent when a mild, medium or strong alimentary stimulant is needed" is a slur on the intelligence of physicians.

Pil. Cascara Compound-Robins is not acceptable for New and Nonofficial Remedies.

EDITORIAL NOTE.—Advertisements of "Pil. Cascara Comp.-Robins" appeared in the following medical journals during 1916:

American Journal of Surgery
Maryland Medical Journal
Charlotte Medical Journal
Medical Council
Southern Practitioner

Virginia Medical Semi-Monthly
Texas Medical Journal
Medical Herald
Medical Brief

GLYCEROPHOSPHATE COMP. AMPULS, 1 Cc., SQUIBB

Report of the Council on Pharmacy and Chemistry

From The Journal A. M. A., Feb. 3, 1917, p. 388

"Glycerophosphate Comp. Ampuls, 1 Cc., Squibb" are claimed to contain, in each, sodium glycerophosphate 0.1 gm., strychnin cacodylate 0.0005 gm., and iron cacodylate 0.01 gm. The Council refused recognition to "Glycerophosphate Comp. Ampuls, 1 Cc., Squibb" because the name did not indicate the potent ingredients and because the administration of a

mixture of sodium glycerophosphate, strychnin cacodylate and iron cacodylate is irrational.

The preceding statement was submitted to E. R. Squibb and Sons for consideration. The firm replied:

" . . . we wish to explain that there has been a small demand for this product, no doubt created by other manufacturers. We have filled hitherto this demand as far as it came to us, using the formula regularly supplied for years by other firms.

"The name Glycerophosphate Comp. to cover a product containing sodium glycerophosphate, strychnine cacodylate and iron cacodylate, seemed to us to be the best that could be devised, under the circumstances. It is absolutely impossible to mention all the ingredients in the name, as it would give an unwieldy title. In passing, we might mention that the U. S. P. and N. F. cover also by the word 'Compound' the potent ingredients in many titles.

"However, the finding of the Council, that the formula here in question is irrational, must determine our action, and we have, in consequence, decided to eliminate Glycerophosphate Comp. Ampuls from our list, dropping the article altogether."

This cooperation in the work of the Council on Pharmacy and Chemistry is gratifying. In passing the Council notes that the foregoing criticism of many Pharmacopeial and National Formulary titles is justified. Many Pharmacopeial preparations have names which are not only non-descriptive but actually misleading. Such are compound powder of glycyrrhiza and compound syrup of figs, both of which owe their activity to senna, and acid camphor mixture and compound mixture of glycyrrhiza, which are essentially opium preparations. If any of these preparations possess therapeutic value their names should be descriptive, as otherwise they violate a fundamental principle in the nomenclature of medicinal substances, a principle for which the Council has contended and which is supported by both the medical and pharmaceutical professions as well as by manufacturers.

AMPULS GLYCEROPHOSPHATE COMP. NO. 1, MULFORD

Report of the Council on Pharmacy and Chemistry

Ampuls Glycerophosphate Comp. No. 1 are stated to contain, in each, sodium glycerophosphate 0.1 Gm., sodium cacodylate 0.05 Gm., and strychnin sulphate 0.5 mg.

The Council voted to refuse recognition to Ampuls Glycerophosphate Comp. No. 1 because the name did not indicate the potent ingredients and because the administration of a mixture of sodium glycerophosphate, sodium cacodylate and strychnin sulphate is irrational.

ALPHOZONE OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

The following advertisement appeared in the *New Idea* (September, 1916), a house organ of Frederick Stearns & Co., the proprietors of Alphozone:

The New Idea—Page 240



Your Baby

Infantile Paralysis

Stearns'

ALPHOZONE

A Safeguard Against Infantile Paralysis
Most powerful Antiseptic and Germicide containing no poison

New York Board of Health and Rockefeller Institute—SAY:

The Department of Health of City of New York in their pamphlet on Infantile Paralysis say: "Experience regarding the occurrence of Poliomyelitis (Infantile Paralysis) warrants the assumption that the disease is spread by contact and carriers who may be children or adults, who are themselves immune, but who harbor the infective material in their nasal and mouth secretions."

Simon Flexner, M.D., Director of Laboratories of the Rockefeller Institute for Medical Research, said in an address

on Infantile Paralysis before the New York Academy of Medicine: "The virus enters the body as a rule if not exclusively, by way of the mucous membrane of the nose and throat, having gained entrance to those easily accessible parts of the body, multiplication of the virus occurs there, after which it penetrates to the brain and spinal cord by way of the lymphatic channels which connect the upper nasal membrane with the interior of the skull—the main avenue of the virus into the body is by way of the upper respiratory mucous membrane—that is, membrane of nose and throat."

Protect your baby from Infantile Paralysis by using a solution of Alphozone, a Most Powerful Germ Killer, as a nasal douche and mouth wash. Use freely—Alphozone contains no poison—not an experiment

For Over Twelve Years Alphozone Has Been Successfully Used by Reputable Physicians

PRICE 25 CENTS

25 TABLETS IN A BOTTLE

In the light of our present knowledge the claim that Alphozone is a preventive of infantile paralysis is without warrant and the advice that the public depend on it for this purpose is reprehensible and dangerous. Therefore, the Council directed that Alphozone be omitted from New and Nonofficial Remedies.

AMMONIUM HYPOPHOSPHITE OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

Ammonium hypophosphite was admitted to New and Non-official Remedies in 1908 as a preliminary step in the consideration of a preparation containing it—"Gardner's Syrup of Ammonium Hypophosphite"—because the Council standardizes unofficial products before considering preparations or mixtures of these.

The therapeutic use of hypophosphites being irrational (see, "The Hypophosphite Fallacy," Report of the Council on Pharmacy and Chemistry, *THE JOURNAL*, Sept. 2, 1916, p. 760), the salt, ammonium hypophosphite, deserves continued recognition only on condition that this salt of ammonium is superior to other salts from which may be obtained the effect of the ammonium radical. It has been claimed that ammonium hypophosphite has a less objectionable taste than other ammonium salts used for similar purposes. This claim would merit serious consideration if in addition to being less objectionable to the taste, the effects of ammonium hypophosphite were equal to or more desirable than the official ammonium salts. There is no evidence that this condition is met by the hypophosphite salt.

Ammonium hypophosphite has long been known, yet it is not official in the Austrian, Belgian, British, French, German, Hungarian, Italian, Swedish, Swiss or United States Pharmacopeias. Neither is it mentioned in the leading textbooks on materia medica, pharmacology or therapeutics. In short it appears to be an instance of an obscure and superfluous salt selected for proprietary exploitation.

Since the continued recognition of ammonium hypophosphite would tend to perpetuate the hypophosphite fallacy, and because there is no evidence supporting its advantage as a means of securing the effect of ammonium salts the Council directed its omission from New and Nonofficial Remedies.

ANDERSON SYSTEM FOR TREATMENT OF ALCOHOLISM

Report of the Council on Pharmacy and Chemistry

The "Anderson System for Treatment of Alcoholism" (The Anderson Laboratories, San Francisco) is a "home treatment" which is said to consist of:

1. Four "Parke, Davis No. 819" pills.
2. Twenty-four small bottles, numbered consecutively, composed of fluidextract containing a mixture of "fluid extract of cinchona comp.," fluidextract of gentian and tincture of capsicum, the proportions not being stated.

3. Seven bottles, lettered from A to G, said to contain a mixture of "fluid extract of cinchona comp.," "fluid extract of gentian comp." and fluid extract of ipecac, the relative proportions of each not being declared.

4. A six ounce bottle said to contain a mixture of tincture of gentian comp. and tincture of cinchona comp., in undeclared proportions.

Accompanying these medicaments are instructions intended for the physician who purchases the treatment and a "medication chart" for the nurse who administers the treatment. It is explained:

"The object of the 'Numbered Bottles' of the Treatment is to act, not only as a bitter tonic to the digestion, but in combination with the capsicum has a distinctive value in Alcoholism as it stimulates the stomach to retain food and relieves the craving for drink."

"The purpose of the 'Lettered Bottles' is to act as emetics and are to be administered with liquor as a means of producing an aversion to liquor. The object of using Fluid Extract of Gentian and Cinchona Comp. with the Ipecac is to disguise the emetic, thus leading the patient to the belief that it is the liquor and not the medicine that is making him sick. Emesis caused by this method assists as an element in elimination which of course is the fundamental principle of the entire treatment."

It is also explained that the pills (according to the catalogue of the manufacturer these are "active cathartic pills") are to be administered when treatment is begun and that the "tonic" is taken three to five times a day for a period of about three weeks, after the first treatment has been carried out. The directions to physicians suggest further medication as required, including the administration of "Pluto water" and "Bromidia"!

While it is claimed that "The efficacy of the treatment depends on correct proportion, combination and proper administration," the proportions of the ingredients in the three liquid preparations are not given and the "treatment" is therefore essentially a secret one, and in conflict with Rule 1. Whatever may be said of the plan of treatment—the routine administration of emetics, the administration of a "tonic" containing considerable amounts of alcohol as an after treatment and the advice to use irrational nostrums such as "Pluto water" and "Bromidia"—it must be held unscientific.

CALCIUM GLYCEROPHOSPHATE AND SODIUM GLYCEROPHOSPHATE OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

Calcium glycerophosphate and sodium glycerophosphate were accepted for New Nonofficial Remedies, chiefly in order that these products might be standardized. These mixtures now being defined in the new edition of the U. S. Pharma-

copeia, this reason for including them in N. N. R. no longer exists. The report of Marshall (*THE JOURNAL*, Feb. 13, 1915, p. 573) which has the endorsement of the Council (*THE JOURNAL*, Sept. 30, 1916, p. 1033) shows that organic phosphorus compounds are split up into inorganic phosphates before absorption, that the animal organism can synthesize its complex organic phosphorus constituents from inorganic phosphates and consequently that the glycerophosphates, so far as their phosphorus value is concerned, are not superior to other phosphates. In fact, sodium and phosphate are more effectively administered as neutral or acid phosphate. It is evident that sodium glycerophosphate is a superfluous pharmaceutical preparation, particularly when the difficulty of obtaining a pure product and its high price is considered. So far as its calcium value is concerned, calcium glycerophosphate has no advantages over such calcium salts as the carbonate, phosphate, lactate, or chlorid. In view of the foregoing, the Council directed that sodium glycerophosphate and calcium glycerophosphate be omitted from New and Nonofficial Remedies.

CITRESIA

Report of the Council on Pharmacy and Chemistry

Citresia was submitted to the Council by Horace North, Brooklyn, with the claim that it "represents in dry form Solution of Magnesium Citrate, U. S. P." The trade package of the preparation apparently contains the materials for the reaction, put up respectively in a paper bag and a small paper. The paper bag appears to contain a mixture of magnesium citrate, citric acid and sugar; the small paper is said to contain potassium bicarbonate. While the contents of the bag were also said to contain a "trace of lemon oil" the flavor of lemon could not be detected, nor did this become apparent when the contents were dissolved in water. The claim was also made that:

"The contents of one package of CITRESIA when dissolved in 10 fluid ounces (1¼ cupfuls) of water forms a highly effervescent drink, superior in flavor, purity and medicinal value to what is commonly sold as Citrate of Magnesia."

Since the preparation is devoid of flavor and there is no evidence that the preparation is superior to the official solution either as regards purity or medical value, this claim could not be accepted.

The Council's rules provide that to be admissible to New and Nonofficial Remedies, pharmaceutical mixtures must have properly descriptive names. They further provide that the subterfuge of obtaining proprietary rights over an official or established nonproprietary product, by introducing unessential modifications, tends to confusion and abuses, and that for this reason such articles will not be admitted by the Council.

Holding Citresia an unoriginal modification of an established remedy marketed under a proprietary name, the Council held it unacceptable for New and Nonofficial Remedies.

COPPER PHENOLSULPHONATE

Report of the Council on Pharmacy and Chemistry

The Abbott Laboratories submitted Copper Phenolsulphonate with the claim:

"Used for practically the same purposes as other similar salts, except that copper is more powerfully germicidal, particularly for low forms of protozoic life; believed to be of value in the treatment of various intestinal diseases, especially in diarrhea, dysentery and typhoid fever.

"Dosage: From 1-64 to 1 grain every two to four hours."

No information was submitted for determining the identity and purity of the compound. The referee of the Council's committee on pharmacology to which the product had been assigned reported that nothing whatever in the evidence submitted would lead one to believe that this product is in any respect superior to other copper salts. The referee held that, on their face, the therapeutic claims appeared absurdly exaggerated, since it is practically inconceivable that $\frac{1}{64}$ grain of this copper salt could have any effect on typhoid fever, for instance, and that this constituted a misleading therapeutic claim and a conflict with Rule 6. The referee further noted that if any reliance for therapeutic effect is placed on the phenolsulphonate constituent of the salt, this would constitute a conflict with Rule 10, since it certainly would be impossible to administer effective doses of this constituent in the form of a copper salt. The case of copper phenolsulphonate thus appears to be parallel with that of quinin arsenate. The latter substance was rejected by the Council because one cannot administer an effective dose of quinin in this form without giving a dangerous dose of arsenic. As a copper salt, copper phenolsulphonate appears to have no advantage over other

salts of copper, and the sulphonate contained in a dose is without value. Yet the general impression is bound to be that by the use of copper phenolsulphonate the effects of both copper and phenolsulphonate are obtained. On the basis of the preceding the referee recommended that copper phenolsulphonate be not admitted. This decision will be subject to reconsideration if definite and sufficient evidence for the value of the preparation is submitted with tests for determining the identity and quality of copper phenolsulphonate. No satisfactory information on the two latter points is found in the literature. The committee on pharmacology having agreed to the recommendations of its referee, the Council voted not to admit copper phenolsulphonate to New and Nonofficial Remedies.

The preceding report was submitted to the Abbott Laboratories for consideration. The firm's reply contained nothing to warrant a reconsideration of the rejection of copper phenolsulphonate. Accordingly the Council authorized publication of this report.

GARDNER'S SYRUP OF AMMONIUM HYPOPHOSPHITE OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

In recognition of the considerable revision of the therapeutic claims made by the manufacturer, Gardner's Syrup of Ammonium Hypophosphite was retained in New and Nonofficial Remedies, 1916, and the proprietor advised of this provisional retention.

In the most recent advertising for this ammonium hypophosphite syrup the claim is made:

"Besides being an active expectorant Syrup of Ammonium Hypophosphite (Gardner) is useful as an alterative and resolvent and by virtue of its phosphorus element, which is in the form of a hypophosphite, PH_2O_2 , has a tonic value."

As detailed in the report of the Council "The Hypophosphite Fallacy" (*THE JOURNAL*, A. M. A., Sept. 2, 1916, p. 760) careful studies show that the hypophosphites are devoid of the "alterative" and "tonic" actions claimed by the manufacturer of Gardner's Syrup of Ammonium Hypophosphite. Accordingly the Council voted to omit Gardner's Syrup of Ammonium Hypophosphite from New and Nonofficial Remedies and authorized publication of this report.

GARE'S GRANULAR LECITHINE**Report of the Council on Pharmacy and Chemistry**

Gare's Granular Lecithine was submitted by the Gare Pharmacal Company, who stated that it contained 60 per cent. lecithin, 33 per cent. albumin and 7 per cent. sodium chlorid, and is recommended for use "in all cases where lecithin is indicated." The referee found that the lecithin in this product, calculated from the soluble nitrogen present, would amount to 26 per cent.; calculated from the soluble phosphorus, it would amount to 21.4 per cent. By either method of estimation the lecithin content is much below the amount claimed. The product was found to contain much fat and moisture. It is ineligible for the same reasons which led the Council to omit lecithin and lecithin preparations from New and Nonofficial Remedies, namely, impurity of commercial substances, smallness of dosage, and lack of evidence of any advantage of commercial lecithin over the lecithin contained in natural foods. The composition of Gare's Granular Lecithine, moreover, is not correctly stated. For these reasons the Council voted that Gare's Granular Lecithine be refused recognition.

GLUTEN PRODUCTS MADE BY THE KELLOGG FOOD COMPANY**Report of the Council on Pharmacy and Chemistry**

For over two years the Council has had under consideration certain products offered for the use of diabetics by the Kellogg Food Company of Battle Creek, Mich. These are:

Pure Gluten Biscuit.

Pure Gluten Meal.

40 per cent. Gluten Biscuit.

40 per cent. Gluten Flour.

40 per cent. Gluten Meal.

20 per cent. Gluten Meal.

The Council found these products ineligible for New and Nonofficial Remedies because the statements of composition (particularly of starch content) were insufficient and because the exploitation of the products to the laity was objectionable. June 21, 1915, the company promised to place a statement of the starch content on the package of each gluten product, to place on the gluten flour sacks a caution that diabetics use the flour only on the advice of their physicians, and to revise

its advertising in accordance with the suggestions of the Council. Nothing further having been heard from the company, in April, 1916, specimens of the product were obtained, through a layman, direct from the Kellogg Food Company. These specimens, together with the advertising matter received at the same time, and also a letter of advice from the company to another layman, were sent to the Council's referee, whose report follows. As will be seen, the referee finds that the amounts of carbohydrates contained in Pure Gluten Flour, 40 per cent. Gluten Flour and Pure Gluten Meal are greater than the amounts claimed in the company's published analyses; that in the two first mentioned the amounts of protein are less than the amounts claimed; that exaggerated claims are made on all the labels and in the advertising literature, and that the company prescribes directly to the patient.

The following report was sent to the Kellogg Food Company for consideration. In reply the firm stated that a revision of its advertising was under consideration but would make no statement as to how soon this revision would be carried into effect. As the consideration had already consumed two years, the Council decided to give the profession the facts and authorized publication of the report. At the same time the Kellogg Food Company was advised that its products would be considered further whenever any submitted evidence warranted this.

W. A. PUCKNER, Secretary.

Referee's Report

I submit herewith my report on certain foods offered by the Kellogg Food Company for the use of diabetics. I shall discuss these products from the standpoint of the claims made on the label, from the standpoint of the company toward non-medical treatment as revealed in a letter to a layman, and lastly, on the basis of the claims made for the foods in the company's literature.

CLAIMS MADE ON THE LABEL

PURE GLUTEN BISCUIT		
	Referee	Company
Water	8.30	5-10
Ash	2.04	1-2
Protein (N $\times$ 5.7).....	73.87	75-80
Fiber	0.12	2.4-3
Carbohydrates	14.84	0-5
Fat	0.81	0.25-0.70
Starch	4.02	0-5

The sample analyzed does not contain the amount of protein claimed for it. It also contains more starch than one might suspect from the company's analysis. A more conservative claim would be "starch less than 5 per cent." The company makes the error of using the terms "starch" and "carbohydrates" as synonymous. If the maximum figures of the company's analysis are used, the carbohydrates would amount to 5 per cent., whereas I find 14.84 per cent. The claim on the label "Guaranteed to contain less than 5 per cent. of carbohydrates" is incorrect. The next claim, "Each ounce of this gluten contains 23 grams of protein and represents 95 calories" is approximately correct, as my analysis shows 20.9 grams of protein and 103 calories.

The following remarks under "Vegetable Proteins" are in my judgment exaggerated:

"Leading authorities are now agreed that meat, fish, eggs and other animal proteins are greatly inferior to vegetable proteins in diabetes, often increasing the sugar output and the dangerous acidosis which leads to diabetic coma. . . . After many years of experimentation we have succeeded in perfecting a process whereby the carbohydrates are excluded."

In this connection von Noorden, whom the company constantly quotes, says:

"In the slighter forms (of diabetes), the influence of meat albumins is not great and it is difficult to demonstrate the reaction of the patient to different forms of albumin. It may be necessary to add more albumin than the patient can actually take before glycosuria indication is reacted. . . . Once a medium amount of albumin is exceeded, say 70 to 80 grams, the glycosuria increases, no matter what the type of albumin is."

My analysis also shows that the carbohydrates are not excluded from this food as claimed above.

40 PER CENT. GLUTEN BISCUIT

	Referee
Water	8.50
Ash	1.48
Protein (N $\times$ 5.7).....	41.15
Fiber	0.08
Carbohydrates	47.81
Fat	0.98
Starch	36.98

No analysis is supplied by the company, but this may be called properly a "40 per cent. Gluten Biscuit." The company claims, however, that this is "Best for Diabetics," which is not true.

Here, as in the case of "40 per cent. Gluten Flour," the company's label attributes to "Dr. Wm. Osler in 'Practice of

Medicine," the following quotation: "Of Gluten Foods, many are very unpalatable, others are frauds. A Good Gluten Flour is made by the Battle Creek Sanitarium Co., Mich." I have no way of knowing to which gluten flour of the company Dr. Osler had reference. The "Pure Gluten Meal" might be called properly a "good gluten flour," but this "40 per cent. Gluten Flour" is no better, and no worse, than the average gluten flour on the market. The quotation from Osler gives an entirely false impression.

40 PER CENT. GLUTEN FLOUR

	Referee	Company
Water	8.62	5-10
Ash	0.89	0.5-1
Protein (N $\times$ 5.7).....	33.63	40-45
Fiber	0.08	1-3
Carbohydrates	55.35	40-45
Fat	1.43	0.2-0.5
Starch	48.04	

My analysis shows 6.37 per cent. less protein than the company's minimum, and 10.35 more carbohydrates than their maximum. In past years I have found the protein in this brand to range from 35.0 to 42.9 per cent. (using the factor 5.7). It is true that the manufacturer does not state what protein factor is used in his reported analysis, but as in four other brands 5.7 is used, it is fair to assume that the same factor applies to this as well. At least such should be the case, as otherwise the manufacturer's analyses would be meaningless. Even using the factor 6.25, this later sample contains only 36.88 per cent. of protein.

The following statement, in my judgment, as applied to a food containing over 48 per cent. of starch, does not hold water: "This food is of special service in cases of Glycosuria and in the milder forms of Diabetes." With this brand as with "40 per cent. Gluten Biscuit" the manufacturer again uses the misleading quotation from Osler.

40 PER CENT. GLUTEN MEAL

	Referee	Company
Water	7.30	5-10
Ash	1.36	1-2
Protein (N $\times$ 5.7).....	41.55	40-45
Fiber	0.10	1-2
Carbohydrates	48.58	40-45
Fat	1.11	0.2-0.5
Starch	36.59	40-45

The claimed analysis is justified by my findings. I must take exception, however, to the following statement: "Prepared with great care from a good grade of Spring Wheat, by our special process, which preserves the natural food

properties of the product." The company evidently tries to carry water on both shoulders, on the one hand claiming a reduction in the starch content, while on the other claiming the preservation of all "the natural food properties."

20 PER CENT. GLUTEN MEAL

	Referee	Company
Water	7.65	5-10
Ash	1.22	1-2
Protein (N $\times$ 5.7).....	24.68	20-30
Fiber	0.12	1-2
Carbohydrates	65.41	65-70
Fat	0.92	1-2
Starch	51.24	65-70

The company's analysis is confirmed. As the company claims directly that this is "Not A Diabetic Food," any criticism of its use for that purpose is disarmed. However, again exception must be taken to the statement that "the natural food properties of the product" are preserved.

PURE GLUTEN MEAL

	Referee	Company
Water	4.60	5-10
Ash	0.96	1-2
Protein (N $\times$ 5.7).....	76.78	75-80
Fiber	0.08	1-3
Carbohydrates	16.77	0-5
Fat	0.81	0.25-0.70
Starch	6.77	0-5

The minimum claim as to protein is justified. Again the company confuses carbohydrates and starch, and the food instead of containing from 0 to 5 per cent. of "carbohydrates (starch)" actually contains 16.77 per cent. of carbohydrates, of which 6.77 per cent. is starch. Once more the statement that "the natural food properties" are preserved is untrue as applied to a wheat product deprived of most of its starch.

In justice to the company, it should be noted that on the labels of "Pure Gluten Biscuit" and "Pure Gluten Meal" appears the warning: "Every person suffering from diabetes should be under the care of an experienced physician," and on the label of "40 per cent. Gluten Meal," "Persons suffering from diabetes should use this food only on the advice of a physician." On the other hand, the suggestion on the label of "Pure Gluten Meal," "Write for a copy of Diabetic Foods and How to Use Them" is a more or less direct invitation to self-treatment. Moreover, a letter dated May 9, 1916, apparently dictated for the Kellogg Food Company by one Ruth French, in reply to an inquiry from a layman, gives direct advice with no reference whatever to a physician.

CLAIMS MADE IN A LETTER TO A LAYMAN

In addition to this inconsistent attitude the letter makes certain clear misstatements, as follows:

"40 per cent. Gluten Flour actually contains 40 per cent. of pure Gluten, making it a perfectly safe article of diet in all but the gravest cases of diabetes. From our Gluten Flour excellent bread, gems and puffs are made that perfectly satisfy the craving for bread with no harmful results." This flour contains 33.63 per cent. of gluten, not 40 per cent.; it is not "a perfectly safe article of diet in all but the gravest cases of diabetes," for if one reads the literature correctly, starch restriction is more necessary in mild than in severe cases of diabetes. Furthermore, the bread, gems and puffs made from such a flour do not "satisfy the craving for bread with no harmful results."

In the next paragraph of the letter, undue emphasis is laid on the "objectionable properties" of flesh foods, a statement only in accord with the tenets of extreme vegetarians. I also doubt very much whether the statement is true that "under a diet of our diabetic foods the thirst to which diabetics are so often subject is usually very much relieved."

In the next paragraph the assertion is made that "The diet indicated . . . is in keeping with the ideas of the highest medical authorities. . . . Meat is entirely excluded from the dietary." My reading of the literature does not show that the leading authorities take any such position. Later on reference is made to von Noorden's claim as to the superiority of vegetable over animal proteins, which I have already discussed under "Pure Gluten Biscuit." (Certain detached sentences of von Noorden might justify such a statement, but a reading of all he says on the subject leads to a very different conclusion.)

CLAIMS MADE IN AN ADVERTISING BOOKLET

The whole booklet is written from the standpoint of an extreme vegetarian, and therefore is often misleading in its conclusions.

Page 5. "The researches of Ogata and others have shown that cane sugar is a less wholesome food than the natural sugars found in fruits and produced in the body by the digestion of starch, that is, fruit sugars and malt sugars." In opposition to this I quote from von Noorden, their own authority, "Die Zuckerkrankheit und ihre Behandlung," Berlin, 1910, page 270:

"That levulose, milk sugar and inulin are more useful than the other carbohydrates is a common opinion, but the importance of their use in practice does not correspond with the theory. In light cases the form of carbohydrates makes little difference; in severe cases the advantage from using levulose, milk sugar, etc., is only slightly greater than from using bread and flour. . . . Only in certain cases does it appear to me that the special form of carbohydrates possesses any particular significance."

On page 92 of the same work von Noorden tells us that of the carbohydrates dextrose is the worst, with maltose almost as bad (in spite of the fact that Kellogg exploits his "Maltose," the "new carbohydrate," as of special value for diabetics). He also says that levulose increases glycosuria only about half as much as dextrose, when used occasionally, but with long use it is as bad as dextrose and starch.

Page 5. The company refers to sugar as "possibly also causing diabetes." Sugar or any other carbohydrate may under diabetic conditions cause an increase of glucose in the urine, but I do not believe that any food or any diet can cause diabetes.

Page 7. "That the large use of meat and eggs is not only detrimental but positively dangerous in many cases of diabetes is now a well known and recognized fact." The dietaries of well known authorities on diabetes are not in harmony with this statement.

Page 13. "It has been discovered that the complete suppression of carbohydrates from the dietary is not only unnecessary but is highly detrimental and even dangerous." "The complete suppression of carbohydrates from the dietary" is the only means the physician has to determine the diabetic's carbohydrate tolerance. If carbohydrate-poor foods are so "highly detrimental and even dangerous," why does the company exploit foods like "Pure Gluten Flour" and "Pure Gluten Biscuit," whose chief claim to excellence is their comparative freedom from carbohydrates?

Page 17. "Cream is an emulsion, and, with the exception of egg yolk, is the only form in which animal fat is found in an emulsified state." Milk, Nature's most wonderful emulsion, is apparently overlooked.

Page 19. ". . . these foods . . . will be found of great value . . . especially as substitutes for the breads and meats which are the most objectionable features of the ordinary diet, and which should, as far as possible, be interdicted in this class of cases." This is simply special pleading for the Kellogg vegetarian diet.

Page 19. "Our gluters . . . are all thoroughly standardized, so that in their use the physician and the patient know just the amount of starch eaten." This standardization is largely mythical. For instance, "Pure Gluten Biscuit" claims 0 to 5 per cent. "carbohydrates (starch)," whereas I find 14.84 per cent. carbohydrates with 4.02 per cent. starch. "40 per cent. Gluten Flour" claims 40 per cent. gluten and 40 to 45 per cent. carbohydrates, whereas I find 33.63 and 55.35 per cent., respectively. "Pure Gluten Meal" claims 0 to 5 per cent. "carbohydrates (starch)" whereas I find 16.77 per cent. carbohydrates and 6.77 per cent. starch. I have a record of six analyses each of "40 per cent. Gluten Flour" and "40 per cent. Gluten Biscuit," which show the hollowness of this claim of "standardization." The flour showed 33.6, 35.0, 42.9, 36.8, 35.6, and 40.9 per cent. of protein, with from 40.8, to 55.4 per cent. of carbohydrates; the biscuits 32.7, 33.2, 39.5, 43.3, 33.9, and 41.2 per cent. of protein, with from 41.1 to 54.0 per cent. of carbohydrates. In fact, my experience shows that the Kellogg products are more poorly "standardized" than most of the diabetic foods on the market.

Page 20. "May be made to carry a large amount of fat in the form of butter, a most desirable thing in the treatment of diabetes," while on page 16 the company claims that in an experiment of Minkowski on a dog, butter "passed through the body without change, none being absorbed"; these are certainly contradictory statements. The explanation is that on the one page the company is exploiting its biscuits, and on the other its nut preparations.

Page 20. Again the incorrect claim is made for "40 per cent. Gluten Flour" that "we believe this to be the only standardized gluten flour made."

Page 21. The claim is made that flesh foods are "objectionable on account of the large amounts of ptomains and toxins which they contain." I was not aware that fresh meats contained any ptomains whatever. On the same page the claim is again made that by the use of the Kellogg nut foods "diabetics lose their thirst," a claim which I think is more than doubtful.

Page 22. "Nuts are a whole food, containing all the elements required for the perfect nutrition of the body." A marked characteristic of nuts is that they are not "a whole food," as with the exception of a few varieties, such as the chestnut, they are extremely poor in carbohydrates, which fact gives them their value in the diabetic diet.

Page 23. "With the exception of the potato, the beet and the carrot, vegetables contain little sugar or starch." Corn,

beans and peas are all vegetables which are relatively high in carbohydrates, and for this reason are specifically excluded from the diabetic's dietary.

From the foregoing considerations I would recommend that the company's analyses of "40 per cent. Gluten Biscuit," "40 per cent. Gluten Meal," and "20 per cent. Gluten Meal" be accepted as correct. Before the Council can accept any of these products, the following steps should be taken:

The company on all its labels should correct the impression that "carbohydrates" and "starch" are synonymous terms.

The labels of all the preparations examined should be changed in accordance with the criticisms given above.

In all cases in which analytic data are given, it would be preferable to state only the minimum of protein and the maximum of carbohydrates.

The booklet "Practical Suggestions About Diet in Diabetes" should be radically changed along the lines noted above.

iodo-MANGAN OMITTED FROM N. N. R.

Report of the Council on Pharmacy and Chemistry

Iodo-Mangan, made by the Chemische Fabrik Helfenberg A. G., near Dresden, Germany, and sold in the United States by the Reinschild Chemical Company, New York, is a solution said to contain iron, manganese and iodine in combination with peptone. It is claimed to be a reconstructive tonic and blood-making adjuvant, with favorable action in affections of the glandular system. It was admitted to New and Non-official Remedies in 1907, before the Council had adopted the present Rule 10, which provides that no article shall be admitted to New and Nonofficial Remedies which, because of its unscientific composition, is useless or inimical to the best interests of the public or of the medical profession. In 1911 the Council considered the question whether or not this product was still eligible and decided in the end to retain it as probably having some merit. To determine if Iodo-Mangan was eligible for New and Nonofficial Remedies, 1917, the Reinschild Chemical Company was requested to send in the current advertising matter. As this advertising was not sent in and as apparently the product was not marketed at the present time, the Council on Pharmacy and Chemistry voted to omit Iodo-Mangan from New and Nonofficial Remedies. At the same time the Reinschild Chemical Company was informed that the preparation might be submitted for reconsideration at any time.

LEUCOCYTIC EXTRACT, ARCHIBALD'S**Report of the Council on Pharmacy and Chemistry**

The Western Laboratories submitted to the Council a leukocyte preparation, "Leucocytic Extract, Archibald's." It was claimed that this preparation was superior to other leukocytic extracts because it was made from normal blood from which, it was also claimed, more potent substances can be extracted than from leukocytes produced from an induced inflammatory source. The Council postponed consideration of the preparation until evidence should be submitted for the claims made and also (since the Council accepts no biologic product for New and Nonofficial Remedies unless its interstate sale is authorized) until its sale in interstate commerce should be authorized by the U. S. Treasury Department. The Western Laboratories were notified of this action, April, 1915. No evidence for the claimed superiority having been submitted, and the sale of the product in interstate commerce not having been authorized, the Council voted, Oct. 26, 1916, that Leucocytic Extract, Archibald's, be held ineligible for New and Nonofficial Remedies.

LIQUID ALBOLENE**Report of the Council on Pharmacy and Chemistry**

As now marketed, Liquid Albolene (McKesson and Robbins, New York), is claimed to be made only from genuine Russian oil and hence to possess distinct advantages over

" . . . Oils purporting to be Russian, most of which are imperfectly purified and many of which are positively dangerous for continued use."

On the other hand, a short time ago, McKesson and Robbins claimed that Liquid Albolene was then available.

" . . . Of as high a quality as we had supplied before the European War. Thanks to the research and scientific achievement of Our Chemists, we are now able to offer LIQUID ALBOLENE, using as a base a specially refined Domestic Oil that is in every way suitable for medicinal purposes, and having the same viscosity as Russian Oil."

The advertising matter suggests the promiscuous, thoughtless and irrational use of Liquid Albolene and of a number of Albolene preparations by extravagant claims, such, for example, as the following:

"Albolene will never fail to bring a free, easy stool, no matter what condition may be present, from obstinate atony of the bowel to fissure,

fistula, or even malignant disease, and in spite of the failure of ordinary purgatives to which the patient may have become habituated. . . .

"Aromatic Liquid Albolene is actually the first laxative presented to the medical profession that seems to have no drawback. . . .

"It will not have been lost upon the physician who has read the remarks on the use of Aromatic Liquid Albolene to regulate the bowels in surgical cases, that there are many instances where it would prove equally valuable during the treatment of acute diseases. In the exanthemata, in pneumonia, for example, to cite only a few of the conditions where it may be used to advantage, an absolutely reliable laxative that will not in any way weaken or distress the patient, presents obvious superiority to any of the agents heretofore in common use."

The Council held Liquid Albolene ineligible because the product is marketed in a way to encourage its indiscriminate and irrational use by the public (Rule 4) and because unwarranted therapeutic claims are made for it (Rule 6).

NAPHEY'S MEDICATED UTERINE WAFERS

Report of the Council on Pharmacy and Chemistry

Naphey's Medicated Uterine Wafers were submitted to the Council by the manufacturers, Naphey & Co., some years ago and were rejected. Naphey & Co. has recently requested reconsideration of the preparation, and has submitted advertising matter, trade packages and sample packages. The label of the trade package contains the following:

"Naphey's Wafers. For the local treatment of diseases of women, indicated in catarrhal conditions of the vagina, and of the uterine cervix. As a *[sic]* adjuvant for the physician to use in carrying out treatment of disease of the uterus."

"Zinc Sulphate, $3\frac{3}{4}$ gr., Sodium Sulphate, $3\frac{1}{2}$ gr., Sodium Borate, 4 gr., Boric Acid, $\frac{3}{4}$ gr."

"Naphey & Co., Warren, Pa., U. S. A."

"Each box contains 25 wafers, sufficient for three months' treatment. Price per box, 25c."

In name, composition, and general appearance of the package, Naphey's Medicated Uterine Wafers bear a strong resemblance to Micajah's Medicated Uterine Wafers (*THE JOURNAL*, A. M. A., March 26, 1910, p. 1070). An advertising pamphlet reads:

"In every form of leucorrhea Naphey's Medicated Uterine Wafers are indicated . . ."

"What is true of leucorrhea is also true of all other functional troubles affecting the female genital canal; they are all treated best by astringents and antiseptics. And these, to be effective, must be applied in prolonged contact."

The implication that all "functional troubles affecting the female genital canal" are best treated by astringent tablets like Naphey's Medicated Uterine Wafers is an absurdity. The naming of disease conditions on the label, the manifestly unwarranted and exaggerated therapeutic claims, the name, which is non-descriptive of composition but suggestive of use, and the fixed formula, which cannot rationally be expected to give uniformly satisfactory results in the wide range of conditions for which the product is recommended, render Naphey's Medicated Uterine Wafers ineligible for New and Nonofficial Remedies under Rules 4, 6, 8 and 10.

The report having been sent to Naphey & Co., the manufacturer offered, on condition that the preparation be accepted, to revise the advertising matter in minor particulars, to remove disease names from the trade package and to adopt the name Naphey's Wafers or Naphey's Tablets. The Council advised Naphey & Co. that the proposed names do not conform to the requirements for acceptance in New and Nonofficial Remedies because they do not indicate the composition of this pharmaceutical mixture, and moreover, that the routine use of a complex formula such as that of these tablets is irrational.

NEISSER SEROBACTERIN MIXED

Report of the Council on Pharmacy and Chemistry

In presenting Neisser Serobacterin Mixed for description in New and Nonofficial Remedies, the H. K. Mulford Company wrote:

"Neisser Serobacterin Mixed was not previously submitted to the Council because of the well known attitude of opposition on the part of the Council toward Mixed Vaccines. In view of the fact, however, that the Council has already passed Neisser Bacterin Mixed, we trust that you will also find Neisser Serobacterin Mixed a rational therapeutic agent."

The foregoing refers to the Council's decision to drop, at the expiration of three years from the time of their admission, those mixed vaccines which do not appear to be therapeutically justified (Mixed Bacterial Vaccines, New and Nonofficial Remedies, 1916, p. 331). In accordance with this decision, at the time of receipt of the foregoing communication, Neisser Bacterin Mixed had already been designated for omission from the 1916 edition of New and Nonofficial

Remedies. The referee to whom Neisser Serobacterin Mixed was assigned for consideration reported to the Council's Committee on Serums and Vaccines that he had no evidence before him to show that the action of the Council directing omission of Neisser Bacterin Mixed from New and Non-official Remedies, 1916, should be reversed. In view of this the referee recommended that the H. K. Mulford Company be informed that Neisser Serobacterin Mixed, which contains five different bacteria, included among them being diphtheroid bacilli, can not be admitted.

The recommendation of the referee was endorsed by the Committee on Serum and Vaccines and then adopted by the Council.

NUJOL

Report of the Council on Pharmacy and Chemistry

Nujol, a liquid petrolatum (Standard Oil Company of New Jersey, Bayonne, N. J.), was submitted to the Council by the manufacturers. The Council advised the company that, before Nujol could be made eligible for New and Nonofficial Remedies, the advertising claims made for it must be revised to conform to the rules of the Council and the term "liquid petrolatum" must be used in connection with the brand designation and given equal prominence on the labels, advertisements and all circulars. The company thereupon submitted a label on which the name "Nujol" appeared in large red letters and under it in small letters the words "Liquid Petrolatum." This did not meet the Council's requirement with regard to the name. Moreover, Nujol continued to be advertised to the public under exaggerated and unwarranted claims.

The foregoing report was sent to the Standard Oil Company of New Jersey, which thereupon submitted revised advertising copy. This copy was decidedly less objectionable than the previous advertising but still contained exaggerated statements. The copy for use in lay journals particularly evidenced exaggeration. Observation on many occasions of a similar fact has convinced the Council of the inexpediency of admitting to New and Nonofficial Remedies any article which is advertised to the public.

The Council held that conflict with Rules 3, 6 and 8 prevented the acceptance of Nujol and authorized the publication of this report.

POLLANTIN**Report of the Council on Pharmacy and Chemistry**

The Council found that the Pollantin on the market differed from the Pollantin described in New and Nonofficial Remedies as Pollantin, Fall, and Pollantin Powder, Fall. When it thus became necessary to determine the eligibility for New and Nonofficial Remedies of the new Pollantin, it became apparent that the new product was marked contrary to the rules of the Council. In view of the statement of Fritzsche Bros., the American agents, that the difficulty of communication with the parent house, Schimmel & Co., Miltitz, Germany, prevented the removal of the conflict, the Council decided to retain the old Pollantin description in New and Nonofficial Remedies for one year.

In reply to an inquiry as to the present exploitation of Pollantin, Fritzsche Bros. wrote (Aug. 29, 1916):

" . . . inasmuch as we shall have no supply (virtually none now) to carry over to 1917, definite reply, and action, remain wholly subjective to the war's end and its developments. . . ."

Inasmuch as the Pollantin described in New and Nonofficial Remedies has been replaced by another product and inasmuch as this product, when available, was not marketed in compliance with its rules, the Council voted that Pollantin, Fall, and Pollantin Powder, Fall, be deleted from New and Nonofficial Remedies.

PULVOIDS NATRIUM COMPOUND**Report of the Council on Pharmacy and Chemistry**

Pulvoids Natrium Compound was submitted to the Council by the Drug Products Company, Inc., New York, with the statement that each pulvoid (coated tablet, said to be made to dissolve in the intestinal tract) represents the equivalent of:

Potassium Nitrate	2½ grs.
Sodium Nitrite	½ gr.
Sodium Bicarbonate	2 grs.
Fl. Ext. Crataegus Oxycantha	1 min.
Nitroglycerin	1/250 gr.

According to the advertisements the tablets are "indicated in the treatment of high blood pressure and all forms of hypertension of the cardio-vascular system." It is claimed that the tablets "will not irritate the kidneys."

The Council, having submitted its objections to the manu-

facturer and considered the firm's reply, held that Pulvoids Natrium Compound was inadmissible to New and Nonofficial Remedies for the following reasons:

1. The claim is made that the tablets disintegrate in the intestines; experiments conducted by the Council indicated that in most cases they would be broken up in the stomach. It was found that the tablets were visibly changed immediately after being put into gastric juice or even into distilled water; they disintegrated within from three to four hours, not only in gastric juice (obtained from a dog) at 37 C., but also in distilled water. It is quite usual for solids to remain in the stomach for more than three hours. If they make their way out of the stomach in less than that time the gastric movements must be so vigorous as further to hasten the disintegration of the tablets.

2. The rules of the Council require that the name of a pharmaceutical mixture shall indicate the potent ingredients. The name of this mixture does not indicate the presence of the nitrites, the potassium nitrate, the bicarbonate or the extract of hawthorne and the nondescriptive name is likely to lead physicians to use the tablets without fully realizing what they are giving.

3. No evidence was submitted that the tablets, as found on the market, contained the amount of sodium nitrite and nitroglycerin claimed. That is, it does not appear that the manufacturer checks the sodium nitrite and nitroglycerin content by analysis. The Council did not determine the nitrite content of the tablets. It maintains that when a manufacturer places a product on the market the burden of proof is on that manufacturer to show that the facts are in accordance with his claims for his product. Further, the examination by the Council of one or several specimens of any commercial product (particularly in the case of nitroglycerin preparations) would not be a guarantee of the constancy of its composition so long as the manufacturer does not himself control the composition by analysis. The necessity of such control of tablets containing nitroglycerin is evident from the report¹ of L. F. Kebler of the U. S. Bureau of Chemistry. Dr. Kebler said:

" . . . nitroglycerin tablets have in a majority of cases been found deficient in the nitroglycerin content declared."

" . . . these commodities are manufactured largely by rule of thumb. Little checking obtains in their manufacture and generally no analyst is employed."

1. THE JOURNAL A. M. A., Nov. 2, 1912, p. 1604.

A further proof that nitroglycerin tablets are likely to be deficient in strength is contained in the convictions under the Food and Drugs Act of manufacturers who sold tablets below the declared strength, recorded from time to time (Notices of Judgments Nos. 3405, 2059, 1843, 1799).

4. There is no good evidence, experimental or clinical, to justify the simultaneous administration in fixed proportion of two vasodilators like sodium nitrite and glyceryl trinitrate (nitroglycerin). Also there is no rational excuse for combining extract of hawthorne, which is said to have a tonic effect on the heart muscle, with nitrites, which cause relaxation of the vascular system, or for the combination with these constituents of potassium nitrate or of sodium bicarbonate.

In the absence of evidence for the combination, Pulvoids Natrium Compound must be considered an irrational mixture, the use of which is a detriment to sound drug therapy and, hence, not admissible to New and Nonofficial Remedies.

SALOFORM

Report of the Council on Pharmacy and Chemistry

A referee submitted the following report of the American Medical Association Chemical Laboratory to the Council:

ANALYSIS OF SALOFORM

Saloform (Flexner) is advertised by the Robinson-Pettet Company of Louisville, Ky. In the advertisements for the product it is stated that:

"SALOFORM is a definite chemical compound the component parts of which are *Hexamethylene Tetramine*, *Salicylic Acid* and *Lithia*."

"As a Uric Acid Solvent it is indicated in *Rheumatism*, *Gout*, in *Phosphaturia*, in *Gravel*, and in *Renal Colic*."

"As a Genito-Urinary Antiseptic it limits suppuration anywhere along the Urinary Tract, from the Kidneys down to the orifice of Urethra."

As, even after diligent search, no description of a compound of hexamethylenamine (hexamethylenetetramine), salicylic acid and lithia was found in chemical literature, it seemed probable that Saloform is merely a mixture of hexamethylenamine and lithium salicylate. Accordingly the separation of Saloform into its component parts by means of selected solvents was attempted. By triturating the powder with chloroform, filtering and evaporating the filtrate, a residue was obtained which gave satisfactory tests for hexamethylenamine but contained only traces of salicylic acid or

lithium salicylate. The portion insoluble in chloroform was dissolved in water. The solution gave satisfactory tests for lithium salicylate but not for hexamethylenamine. From these tests it is evident that Saloform is a simple mixture of hexamethylenamine and lithium salicylate. Quantitative examination indicated that the two ingredients, hexamethylenamine and lithium salicylate, are present in approximately equal amounts.

REFEREE'S RECOMMENDATION

The report of our Chemical Laboratory shows that Saloform is not a definite compound as claimed, but a simple mixture of hexamethylenamin and lithium salicylate. It is therefore in conflict with Rule 1. It is also in conflict with Rule 6, for neither hexamethylenamin, lithium, nor salicylate are therapeutically effective "uric acid solvents"; nor would any of these have any effect on "phosphaturia."

The mixture also conflicts with Rule 10; for it is inadvisable to administer the ingredients in fixed, but unknown proportions.

It is recommended that Saloform be deemed inadmissible to N. N. R.

The Council adopted the recommendation of the referee and authorized publication of this report.

SECRETOGEN *

Report of the Council on Pharmacy and Chemistry

About a year ago the Council declared Secretogen,¹ a product the active ingredient of which was stated to be "pancreatic secretin" and advertised as a remedy for certain conditions of defective digestion and assimilation, to be ineligible for New and Nonofficial Remedies. The reasons for this decision were stated at the time as follows:

"1. No evidence has been presented that the absence of secretin is a cause of gastro-intestinal diseases. It is usually present, and if not present, as in achylia gastrica, there is evidently some compensating arrangement by which the pancreas is stimulated to perform its regular functions.

"2. There is no evidence that secretin in any form is physiologically active when administered by mouth."

Since Secretogen was not the only so-called secretin preparation on the market, and since the use of secretin prepara-

* An abstract of this report was published in *The Journal*, Sept. 9, 1916, p. 828.

1. *THE JOURNAL A. M. A.*, May 1, 1915, p. 1518.

tions was recommended by certain writers, notwithstanding the lack of evidence of its value, the Council caused an experimental investigation of the question to be made. This was carried out by Prof. A. J. Carlson of the University of Chicago.

No secretin was found in the commercial products examined, namely, Secretogen Tablets, Secretogen Elixir and Duodenin. Furthermore, Carlson's results² confirmed the Council's previous conclusion as to the inertness of secretin administered by mouth. The Council endorsed Professor Carlson's findings.³

The G. W. Carnrick Company has replied to the publication of this report in the letter printed below. (A portion of this letter, which consists of a communication from an unnamed correspondent of the G. W. Carnrick Company and the company's comment thereon, has been omitted.) The Council offered to publish this if the Carnrick Company would furnish the name of the writer. This it has not done. As will be seen, the company now shifts ground, abandoning entirely the claim that Secretogen contains secretin. The Council has authorized publication of the letter (omitting the part just mentioned), together with the comment that follows.

W. A. PUCKNER, Secretary.

"The Council on Pharmacy and Chemistry of the American Medical Association.

"Gentlemen:—The opinion of the council and the contribution by Professor Carlson which appeared in THE JOURNAL of the American Medical Association for Jan. 15, 1916, have been read by us with interest. The column of Current Comment dealing with 'Tiger-Bone Therapy and Clinical Experience' has appealed to our good nature and, under the circumstances, our sense of humor.

"Professor Carlson seems to have quite well established that the so-called secretin preparations do not contain secretin to any appreciable extent, and that they are inert in laboratory experiments on normal animals. At the same time, to do away with an apparent discrimination on the part of the management of the council, it would have been well if Professor Carlson had included the so-called secretin preparations belonging to another well-known firm which markets such a product. This discrimination has already been referred to by us.

2. Carlson, A. J.; Lebensohn, J. E., and Pearlman, S. J.: Has Secretin a Therapeutic Value? THE JOURNAL A. M. A., Jan. 15, 1916, p. 178. Reports Council on Pharm. and Chem., 1915, p. 98.

3. So-Called Secretin Preparations, THE JOURNAL A. M. A., Jan. 15, 1916, p. 208; Reports Council on Pharm. and Chem., 1915, p. 96.

"Had Professor Carlson stopped at the determination of the therapeutic availability of secretin given by mouth, his work might have been accepted without comment, even if we should have thought it advisable to object to the matter published by the council. But the professor went beyond his province entirely when, in commenting on the findings obtained by using Secretogen clinically, he said: 'It is, perhaps, impertinent for laboratory men to comment on these clinical results.' It is. His point was well taken and it is a profound pity that Professor Carlson did not observe his own ruling.

"In the words of a correspondent of THE JOURNAL of the American Medical Association, in discussing Professor Carlson's criticism of Dr. Crile's 'Kinetic Drive,' 'it behooves the laboratory man to be circumspect in his criticism of clinical theories, since going beyond the bounds of well-established things weakens his position, not merely with reference to the particular subject under discussion, but with reference to clinical phenomena in general.' Clinical results have definitely established the value of Secretogen. As the matter now stands this statement is beyond criticism.

"When Secretogen was first introduced we assumed that it depended on secretin for results produced. In this assumption we were in good company, as witnessed by the testimony of Moore, Edie and Abram when, in the course of their investigations as to the value in diabetes of a *secretin-bearing extract given by mouth*,⁴ they said: 'In the majority of these cases . . . there has been no appreciable fall in the output of sugar . . . in some of these negative cases there has been noted, however, improvement in the digestion and, in certain cases, the patient's weight has increased.' They also state that the secretin-bearing product *'appears to stimulate the functional activity of the duodenum.'*⁴ They give a most significant report.⁵ We quote from the paper as follows:

"The patient had been under observation for six months before treatment and the sugar was not reducible by diet. *Almost at once the dyspepsia from which he was suffering was relieved and his general nutrition improved to such an extent that he regained over eighteen pounds in weight, which he had previously lost, and this improvement was accompanied by complete recovery of his physical and mental energies.*"⁴

"Inasmuch as this improvement could not have been due to the contained secretin it must have been due to some other principle contained in the extract. Our experience and that of the physicians who have used Secretogen establish the fact that Moore, Edie and Abram made no mistake when they came to the conclusion that what they termed a secretin-

4. All italics are ours. G. W. Carnrick Company.

5. Bio-Chem. Jour., 1906, i, 28.

bearing extract stimulates the functional activity of the duodenum and improves the digestion.

"When Professor Carlson was investigating Secretogen he must have realized that he was dealing essentially with an extract of the duodenal mucosa. It is therefore all the more surprising, considering his extensive researches into the literature, that he should have ignored the testimony of some of his own authorities, particularly Hallion, as to the value of extracts of the duodenal mucosa in duodenal insufficiencies. The meticulous carefulness with which this evidence was avoided is hardly worthy of the best traditions of physiology, a science which has truth for its first and last aim.

"Hallion in his '*La Pratique de l'Opothérapie*' says that the 'aims of duodenal opotherapy are: 1, To supply deficient duodenal juice. 2, Above all to stimulate and to relieve this organ—notably to aid the production of secretin⁴—and so profit by the stimulating action which duodenal extract exercises on the duodenal mucosa which action we, Enriquez and myself, believe and have experimentally proved, conforms to the general principles of opotherapy. 3, By means of the production of secretin, to reinforce the biliary, pancreatic and intestinal secretions. 4, To stimulate intestinal peristalsis.

"Principal indications: Intestinal dyspepsias, intestinal autointoxications, certain forms of constipation and duodenal insufficiency.'

"At the International Congress of Medicine, Madrid, 1903, Hallion said that he felt justified in stating that *duodenal opotherapy correctly carried out must be classed under the very best methods of treating dyspepsia.*⁴ The results had been satisfactory and, in many cases, remarkable. It had been nil in a few cases but it had never been harmful in any degree. He pointed out that Marfan was the first to employ this substance clinically. Marfan had had particularly excellent results in children of 15 months to 4 years suffering with marked malnutrition, anorexia and constipation. *Marfan prescribed the duodenal extract given in milk.*⁴ Hallion further remarks that, as he is not a practitioner, he had had only one opportunity to test duodenal opotherapy clinically. The case was that of a man of 26 years with obstinate intestinal dyspepsia and severe constipation which had persisted from childhood. This patient had been treated by enemas, laxatives, diet, etc. *Treatment with duodenal extract resulted in a complete cure.*⁴ Hallion points out that *the most satisfactory aspect of duodenal opotherapy is the permanent effect produced,*⁴ which bears out his statement that these extracts have the power to aid in the restoration of function and structure of an organ.

"This has been so well established that the principle is now embodied in a law which is frequently referred to as 'Hallion's Law': 'Extracts of an organ exert on the same organ an exciting influence which lasts for a longer or

shorter time. When the organ is insufficient it is conceivable that this influence augments its action and, when it is injured, that it favors its restoration.'

"In 'La Pratique de l'Opothérapie' Hallion points out that 'the opotherapeutic product which corresponds to the affected organ represents in some way the stimulating and elective food for that organ, and if we supply the organ with a food which is more complete than it necessarily needs, the affected organ can exercise its elective action and take up only those substances of which it is in need.'

"Hallion's observations on this point are beautifully borne out by the classic work of J. W. Draper, as reported in THE JOURNAL of the American Medical Association, Sept. 26, 1914. This report gives results in both laboratory and clinical experiments.

"In order to show that fed jejunal and ileac epithelium exercise some special detoxicating power, not yet understood but definitely recognizable, Draper fed a control series of dogs with intestinal obstruction, experimentally produced, on emulsified cells of liver, spleen, pancreas and muscle tissue. These animals lived a few hours longer than not-fed controls, but Draper says that it is evident that these cells had either no detoxicating action, or a very feeble one compared with intestinal epithelium. He used jejunal and ileac epithelium clinically in two instances: 1st, In a female dog which had had 'chronic stomach trouble' for six months. When Draper saw her she had had complete intestinal obstruction for five days, with symptoms of tachycardia, extreme nervousness and great weakness in the hind legs. Draper removed a pebble from her intestine but her condition was still grave.

"She was immediately put on small-intestine epithelium derived from two dogs of different breed. Draper says that from a long experience with duodenally obstructed dogs, he should not have expected her to recover, but the symptoms gradually subsided and she lived. The second instance in which he used the epithelium therapeutically was in the case of a man who suffered from an annular cancer of the intestine with definite symptoms of obstruction. After the operation, and realizing that the patient was in a desperate condition, he fed him an emulsion of intestinal epithelium from a dog. The pulse improved and the patient lived.

"Some of Draper's conclusions are as follows:

"'Autotoxemia in intestinal obstruction undoubtedly arises from an interference with cellular reactions of the intestinal epithelium. . . . When small-intestine epithelial cells of healthy animals are placed in the stomach⁴ of duodenally obstructed animals, such animals have lived nearly twice as long as not-fed controlled animals. This evidence is strongly opposed to the bacterial theory of origin of toxins.'

"The point to be emphasized is this: If this emulsion of intestinal epithelium had been fed to a normal dog and a normal man, what would have happened? Absolutely noth-

ing. On the other hand, given as it was to a dog and a man in desperate need it exercised a potent effect.

"Abundant clinical testimony can be cited in support of the opinions of Moore, Edie and Abram, Hallion, Marfan and Draper as to the value of extracts of the intestinal mucosa given by mouth in pathological conditions. We have previously cited the published favorable opinions of such gastro-enterologists as Anthony Bassler, Lewis Brinton, G. R. Lockwood, and R. C. Kemp, so there is no need to recapitulate their experiences with what they honestly believed to be secretin-bearing extracts, but which were essentially extracts of the duodenal mucosa.

"Supplementing the evidence of these men as to the value of these extracts we submit an excerpt from a letter from one of the best known physicians of Edinburgh:

"I can speak in very high praise of Secretogen, which I have used in both tablet form and as the elixir. There is no doubt about its value in a certain class of intractable indigestion which refuses to be benefited by any other remedy. On several occasions I have been much gratified by the definite relief obtained in this class of case. It hits the mark also in some types of obstinate constipation—I think those cases where the trouble is wrapped up in impaired enervation of the intestine, and where stasis occurs at certain segments of the canal."

"Hallion very pertinently points out⁶ that it is now accepted that opotherapy is not substitutive, but homostimulative and he remarks further that it is well to bear in mind that the so-called active substances which make the extract efficacious need not necessarily be the hormones. 'It may be the elements of tissue structure which may come to the aid of the injured organ. The hormone should not therefore be looked on as the only active agent of opotherapy and, while its action is important, it need not necessarily be preponderant. The chemical isolation of the hormones is, of course, of interest but may not be as vital to organotherapy as we have thought.' . . ."

COMMENT BY THE COUNCIL ON PHARMACY AND CHEMISTRY

The G. W. Carnrick Company, which formerly claimed that Secretogen was efficacious because it contained secretin, now admits this claim to be unfounded. Notwithstanding, the manufacturers still call their product Secretogen and make for it practically the same therapeutic claims as before. They now base these claims on vague "principles of opotherapy"

6. Presse Medicale, 1912, p. 433.

and on so-called "clinical testimony." The burden of proof rests on them to show that these old claims, already discredited but put forth again on new grounds, are justified. Have they done so?

The "clinical testimony" is not convincing. So much of it as is definite enough to permit of criticism has already been dealt with. The remainder consists of mere assertions; it is not through reliance on such evidence that the Council can discharge its trust. On this side of the question there is nothing new to be said—reassertion of a refuted argument does not constitute fresh proof.

Nor is the case better on the experimental side. The statements of Hallion, Enriquez, Zuelzer and others⁷ as to the existence of a "peristaltic hormone" not only have failed of confirmation, but also have been positively discredited. With regard to Draper's work, which dealt with acute intestinal obstruction, it is difficult to see what is its relevance to the present issue, particularly since Draper's results were obtained with a product derived from the mucosa of the jejunum and ileum and *not with an extract of the duodenum* such as Secretogen purports to be.

The innuendo that the Council discriminates in favor of certain manufacturers, is itself a confession of weakness.

In publishing this correspondence the Council's sole object is to put the medical profession in possession of the exact facts of the case. These may fairly be summed up as follows:

1. Secretogen was originally marketed as a preparation containing secretin. None was found in it.

2. Notwithstanding proof of this fact, the G. W. Carnrick Company retain the original name of the product, knowing that, by its association with their former erroneous assertions concerning Secretogen, this name must inevitably convey to a physician using the product the impression that he is administering secretin. In the advertising literature no hint is given that this original statement was erroneous.

3. The product called "Secretogen" has not been shown, either experimentally or by sound clinical evidence, to possess useful therapeutic properties.

Under these circumstances the Council reaffirms its decision.

7. Cf. *internal*. Schagindweit, E.: *Experimentelle Versuche mit Hormonal*, Arch. Internat. de Pharmacod., 1913, p. 77.

SUCCINOLAC

Report of the Council on Pharmacy and Chemistry

Succinolac (Succinolac Company, New York) is a fermented milk product said to be prepared from skimmed milk inoculated with a specially selected strain of *Bacillus bulgaricus*. It was submitted to the Council by G. H. Earp-Thomas, proprietor of the Succinolac Company. The advertising informs us that

"Dr. Earp-Thomas, the renowned [!] Bacteriologist [proprietor of the Succinolac Company?], after years of research, has been enabled to develop through up-breeding, this very virile or active b. B. culture. . . ."

The name, "Succinolac," which is said to be "derived from the invaluable acids produced by this strain of culture, namely, Succinic and Lactic," calls attention to the claim that this strain produces an exceptional amount of succinic and lactic acids, the proportion of the former being claimed to be especially high. Much stress is laid on the alleged therapeutic value of this combination of acids. Thus:

"The Succinic and Lactic Acids produced cleanse the vascular walls when they have become hardened through diseases. . . ."

"It has been amply demonstrated that Succinolac when taken in sufficient amounts on frequent occasions, gradually drives out the putrefactive bacteria due to the large amount of Succinic and Lactic Acids produced."

Other extravagant claims for the preparation are:

"It is a tonic to the muscular system. . . ."

"It is invaluable in Diabetes, Typhoid Fever, Intestinal Tuberculosis, Arteriosclerosis, Indigestion, Diseases of Stomach, Intestines, Liver, Kidneys, Bladder, Chronic Headache, Chronic Diarrhoea, Mental Depression and Melancholia."

No evidence was presented to show either that the particular strain of *Bacillus bulgaricus* used in Succinolac produces an exceptional amount of succinic acid, or that succinic acid thus produced gives the product any valuable therapeutic properties. The Council's expert on lactic acid ferment preparations reports that evidence of the therapeutic value of succinic acid is lacking, and that succinic acid constitutes an inconsiderable fraction of the total acidity in products of *B. bulgaricus* fermentation. Unless Succinolac differs most radically from other Bulgarian bacillus preparations (which has not been proved), emphasis on the presence of succinic acid is unwarranted and misleading. If the claimed high succinic acid content be assumed, its asserted therapeutic

value still remains to be proved. Protracted correspondence with the company also failed to elicit the method by which the succinic acid content was said to have been determined.

The Council declared Succinolac ineligible for New and Nonofficial Remedies for conflict with Rules 1, 2, 6 and 8, and after submission of this report to the Succinolac Company authorized its publication.

SULFO-SELENE (WALKER)

Report of the Council on Pharmacy and Chemistry

Sulfo-Selene, according to information submitted by C. H. Walker in July, 1914, is a mixture containing a selenium compound of undetermined composition produced by reduction of nitro-selenous acid with sulphurous acid, mixed with bile salts and diluents, made by Frederick Klein, New York City. It was recommended for use in the treatment of malignant disease to reduce pain, to check hemorrhages, as a deodorant (of discharges and secretions), for its therapeutic benefit, as a "liver specific" and as a prophylactic after operative treatment.

The claim that Sulfo-Selene is useful in malignant disease is based on the experience of C. H. Walker (the *Post Graduate*, May, 1914) with five cases. The treatment was used in these cases for periods of from six weeks to two months. No evidence was furnished of any cure or check in the growth of the malignant tumor in these cases. Relief of pain and improvement in the general condition were reported, but the connection of these changes with the medication was not shown, as the period during which the patients were under observation was too brief to permit the drawing of satisfactory conclusions. No evidence was offered that this mixture has any specific action on the liver.

The supposed scientific basis for the use of selenium in cancer has proved false (THE JOURNAL, July 4, 1914, p. 33). Moreover, the scientific experiments with selenium in the treatment of malignant disease have been confined to mouse cancer, and there has been no work done to indicate its utility in human cases.

The Council having voted that Sulfo-Selene be refused recognition for lack of evidence of value, the clinical cases reported having been under observation for too short a period to permit of any valid conclusions, a statement to this effect was sent to C. H. Walker. In his reply Dr. Walker reported ten cases and stated that he could furnish reports of forty

cases in which Sulfo-Selene had been used. The case reports demonstrated no efficient action on the tumor growth. The claims of diminished rate of tumor growth, improvement of appetite, increased weight, relief of pain, etc., are such as are regularly made for all cancer treatments. The Council therefore postponed the further consideration of Sulfo-Selene for more than a year pending submission of satisfactory evidence that this preparation has any effect other than psychic. During this time no further evidence was received from C. H. Walker. On the other hand, a student of cancer research states that since reporting on the product last year he has had occasion to make further inquiries in regard to the use of Sulfo-Selene and finds that the results are uniformly negative as regards effect on growth.

In view of inquiries received in regard to the efficacy of Sulfo-Selene, the Council voted that it be held ineligible for New and Nonofficial Remedies and authorized publication of its findings. When C. H. Walker was apprised of the Council's rejection of Sulfo-Selene he sent a long telegram stating that Sulfo-Selene is not now offered for sale, and reiterating his published claims but not adding anything thereto. At the same time an inquiry was sent to Dr. Klein requiring confirmation of the statement that he was the manufacturer of Sulfo-Selene. Dr. Klein replied:

"It is true that this product is now manufactured by me in the Walker-Klein Laboratory, located and in connection with Dr. Chas. H. Walker's home and office . . ."



INDEX OF PROPRIETARIES, MANUFACTURERS AND AGENTS

	PAGE
Abbott Laboratories	
Copper Phenolsulphonate	54
Albolene, Liquid	65
Albolene, Liquid, Aromatic	65
Alcoholism, Anderson's System for Treatment of	51
Alphozone Omitted from N. N. R.	50
Ammonium Hypophosphite Omitted from N. N. R.	51
Ammonium Hypophosphite, Gardner's Syrup of, Omitted from N. N. R.	51, 55
Ampuls Glycerophosphate Comp. No. 1, Mulford	49
Anderson's Laboratories, The	
Anderson System for Treatment of Alcoholism	51
Archibald's Leukocytic Extract	65
Arsenobenzol	19
Aspirin	43
Aspirin-Bayer	43
Bayer Company, Inc.	
Aspirin	43
Aspirin-Bayer	43
Bi-Taride Tablets	21
Borchardt Malt Extract Company	
Borchardt's Malt Olive with Hypophosphites Omitted from N. N. R.	17
Borocol Chemical Co.	
Colloidine	7
Bromin-Iodin Chemical Company	
Bromin-Iodin Compound	40
Calcium Glycerophosphate Omitted from N. N. R.	52
Calcyates, Pulvoids	18
Carrick, G. W., Company.	
Seeretogen	72
Cascara Compound, Pil.-Robins	47
Casta-Flora	45
Castrox	41
Chemische Fabrik Helfenberg A. G.	
Iodo-Mangan Omitted from N. N. R.	64
Citresia	53
Colloidine	7
Copper Phenolsulphonate	54
Dermatological Research Laboratories.	
Arsenobenzol	19
Diarsenol	19
Drug Products Company, Inc.	
Pulvoids Calcyates	18
Pulvoids Natrium Compound	69

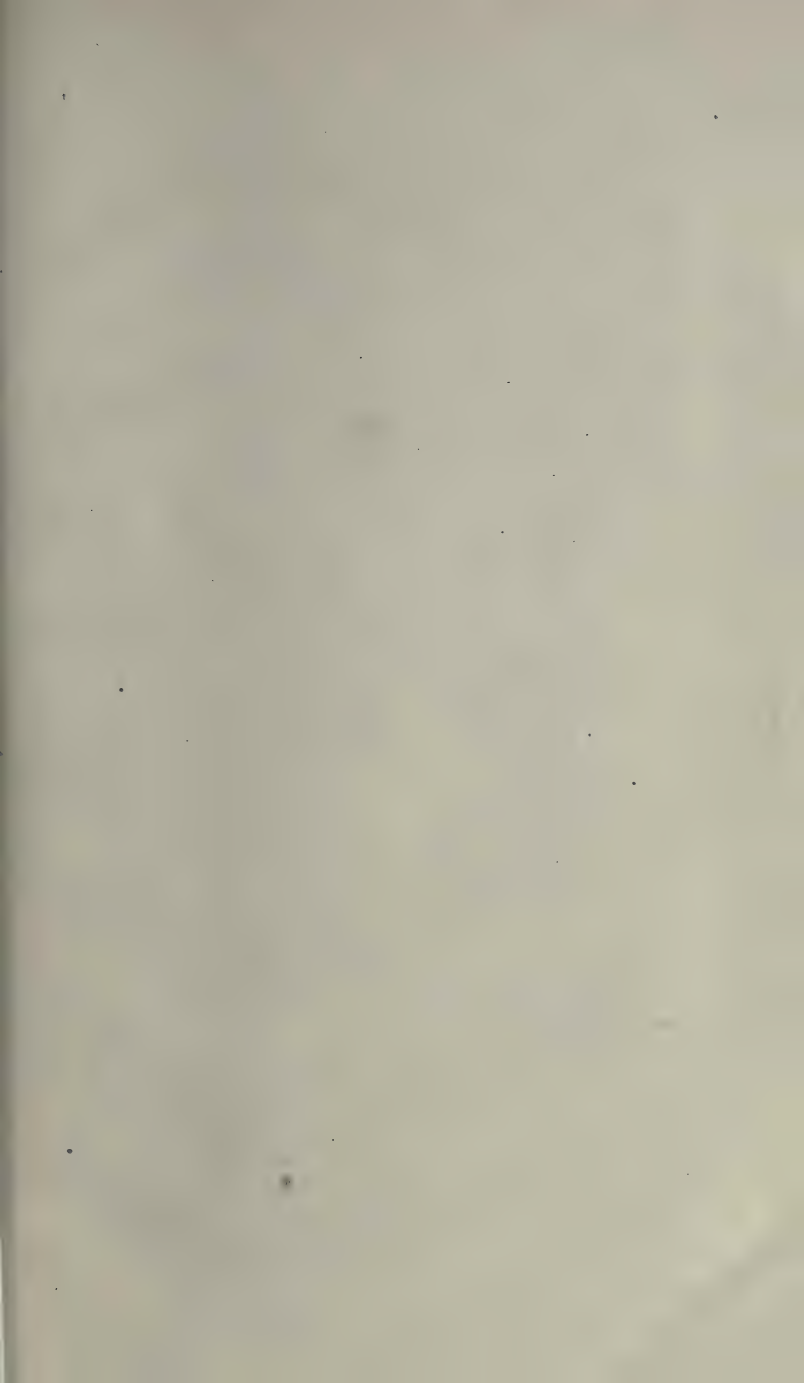
	PAGE
Dubois, A.	
Colloidine	7
Duotonal Tablets.....	34
Eimer and Amend.	
Phosphorcin	34
Elixir Glycerophosphates, Nux Vomica and Damiana.....	35
Eupeptic Hypophosphites.....	15
Fellows Medical Mfg. Co.	
Fellows' Syrup of Hypophosphites.....	13
Fougera, E. & Co., Inc.	
Phosphoglycerate of Lime (Chapoteaut).....	35
Fritsche Bros.	
Pollantin, Fall Omitted from N. N. R.....	69
Pollantin Powder, Fall Omitted from N. N. R.....	69
Gardner, R. W.	
Gardner's Syrup of Ammonium Hypophosphite Omitted from N. N. R.....	51, 55
Gare Pharmacal Co.	
Gare's Granular Lecithine.....	56
Germicidal Products Corporation	
Bi-Taride Tablets.....	21
Gluten Biscuit, Pure.....	56, 57
Gluten Biscuit, 40 per cent.....	56, 58
Gluten Flour, 40 per cent.....	56, 59
Gluten Meal, Pure.....	56, 60
Gluten Meal, 40 per cent.....	56, 59
Gluten Meal, 20 per cent.....	56, 60
Gluten Products Made by the Kellogg Food Co.....	56
Glycerophosphate Comp. No. 1, Ampuls, Mulford.....	49
Glycerophosphate Comp. Ampuls, 1 Cc., Squibb.....	48
Glycerophosphates, Nux Vomica and Damiana, Elixir.....	35
Glycerophosphates, Schering's (Tonols).....	34
Glycerophosphates, Therapeutic Value of.....	32
Goiter Serum, Mark White.....	23
Granular Lecithine, Gare's.....	56
Hawes Chemical Company	
Toxinol	38
Hydras	36
Hypophosphite Fallacy, The.....	11
Hypophosphites and Olive Oil, with Maltine, Omitted from N. N. R..	17
Hypophosphites, Borchardt's, with Malt Olive, Omitted from N. N. R..	17
Hypophosphites Comp. (Lime and Soda), Syrup of, McArthur's.....	16
Hypophosphites, Eupeptic.....	15
Hypophosphites of Lime and Soda, Solution, Schlotterbeck's.....	14
Hypophosphites, Robinson's	15
Hypophosphites, Syrup of, Fellows'.....	13
Hypophosphites, with Maltine, Omitted from N. N. R.....	17
Iodinized Oil, Mark White.....	23
Iodo-Mangan Omitted from N. N. R.....	64
Iron Citrate Green.....	42
Kellogg Food Company	
Gluten Biscuit, Pure.....	56, 57
Gluten Biscuit, 40 per cent.....	56, 58
Gluten Meal, Pure	56, 60

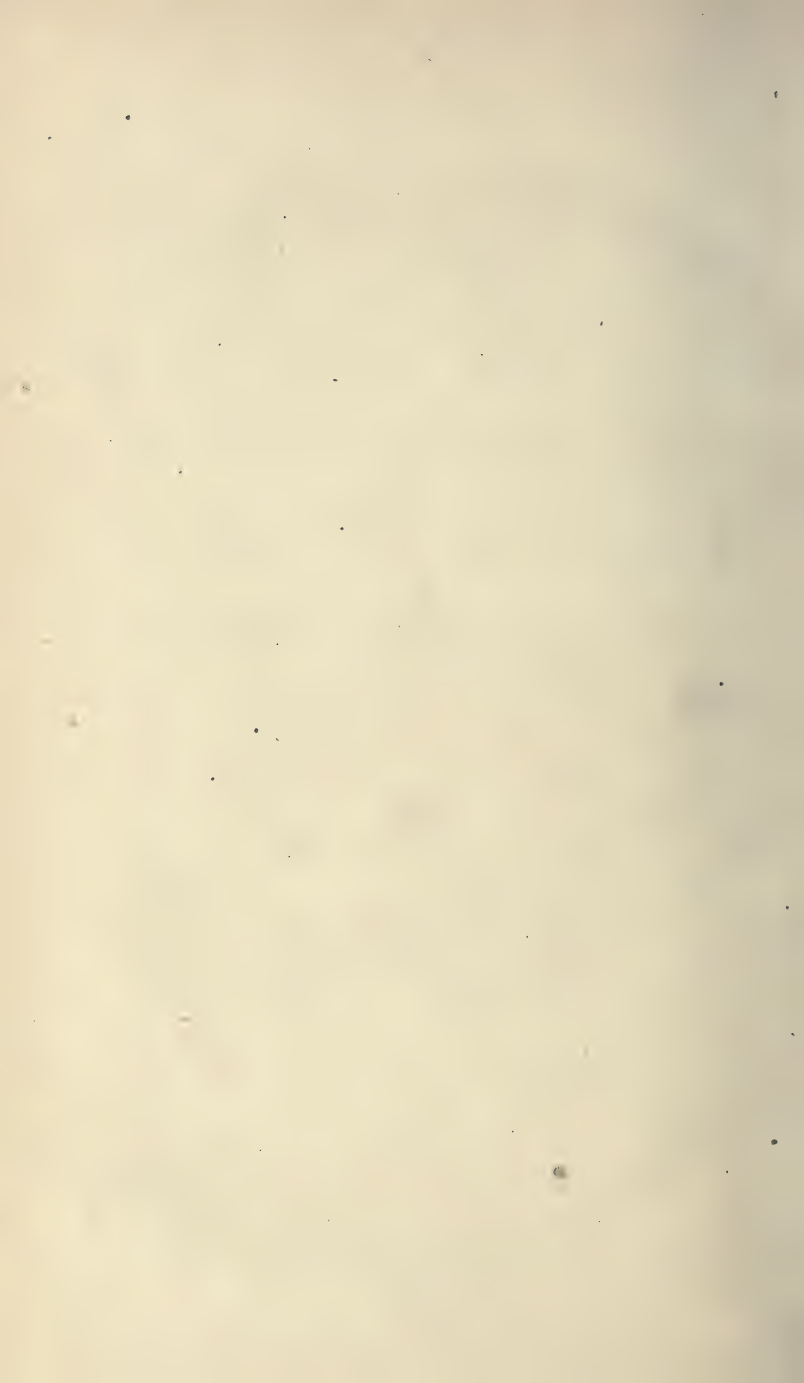
	PAGE
Gluten Meal, 40 per cent.....	56, 59
Gluten Meal, 20 per cent.....	56, 60
Gluten Flour, 40 per cent.....	56, 59
Klein, Frederick	
Sulfo-Selene	80
Kora-Konia	31
Laboratories de Pharmacologie Générale (Dr. Ph. Chapelle)	
Phosphoglycerate of Lime (Chapoteaut).....	35
Lecithine, Granular, Gare's.....	56
Leucocytic Extract, Archibald's.....	65
Liquid Albolene.....	65
Liquid Albolene, Aromatic.....	65
Liquor Hypophosphitum.....	14
Malt-Diastase Co.	
Maltzyme with Hypophosphites Omitted from N. N. R.....	17
Maltine Company, The	
Maltine with Hypophosphites Omitted from N. N. R.....	17
Maltine with Olive Oil and Hypophosphites Omitted from N. N. R.....	17
Maltzyme with Hypophosphites Omitted from N. N. R.....	17
McArthur Hypophosphite Co.	
McArthur's Syrup of the Hypophosphites Comp. (Lime and Soda).16	
Mark White Goiter Serum.....	23
Mark White Iodized Oil.....	23
McKesson & Robbins	
Liquid Albolene.....	
Aromatic Liquid Albolene.....	65
Mennen, Gerhard, Chemical Co.	
Kora-Konia	31
Merrell, Wm. S., Chemical Co.	
Casta-Flora	45
Monal Frères	
Sulphuryl Monal.....	22
Mulford, H. K., Company	
Ampuls Glycerophosphate Comp. No. 1, Mulford.....	49
Iron Citrate Green.....	42
Neisser Serobacterin Mixed.....	67
Mystic Chemical Co.	
Olio-Phlogosis	10
Naphey & Co.	
Naphey's Medicated Uterine Wafers.....	66
Natrium Compound, Pulvoids.....	69
Neisser Serobacterin Mixed.....	67
Nelson, Baker & Co.	
Eupeptic Hypophosphites	15
North, Horace	
Citresia	53
Nujol	68
Olio-Phlogosis	10
Organic Products Company	
Phosphorcin Compound.....	34

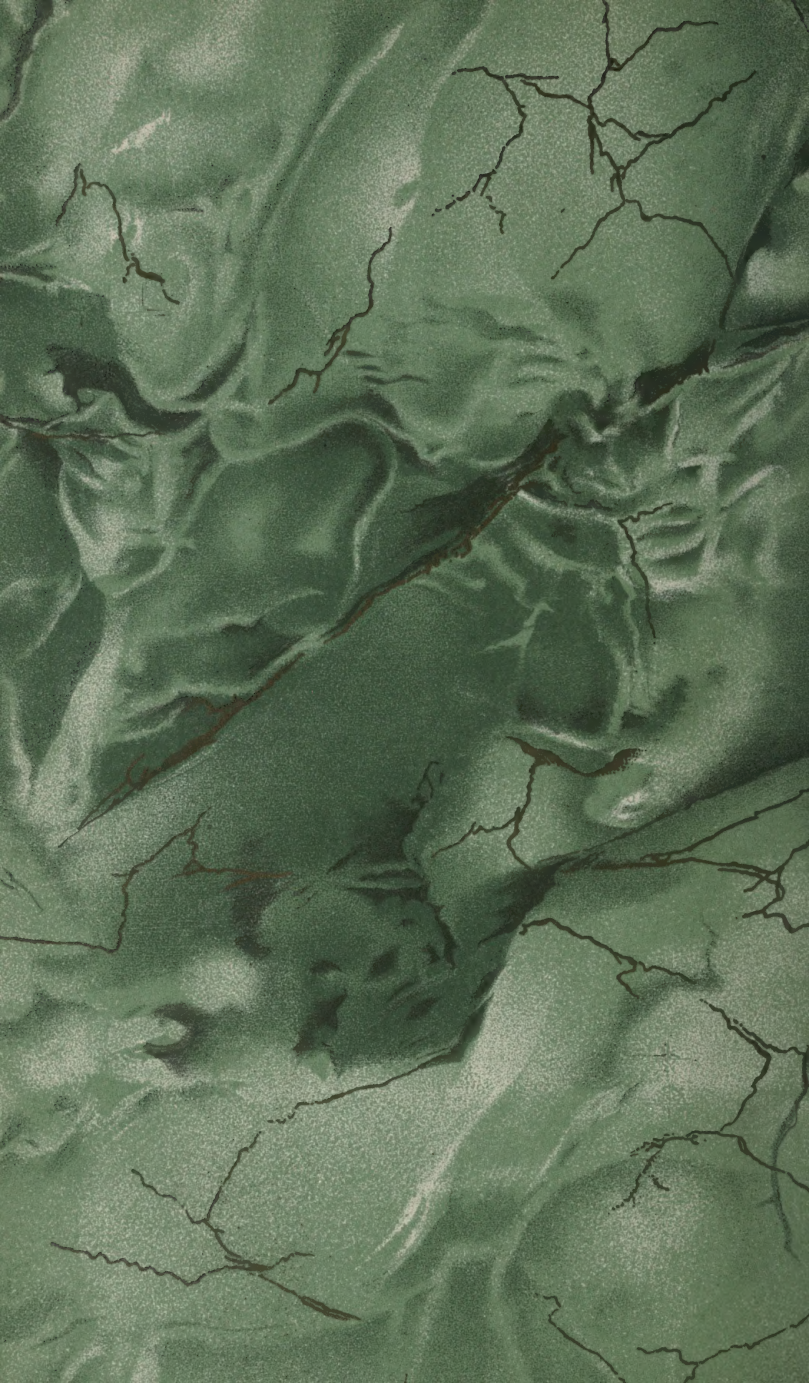
	PAGE
Peter, Arthur, & Co.	
Syrupus Roborans (Syrup Hypophosphites Comp. with Quinin, Strychnin and Manganese)	14
Phenolsulphonate, Copper	54
Phosphoglycerate of Lime (Chapoteaut)	35
Phosphorcin	34
Phosphorcin Compound	34
Pil. Cascara Compound-Robins	47
Pollantin	69
Pollantin, Fall Omitted from N. N. R.	69
Pollantin Powder, Fall Omitted from N. N. R.	69
Pulvoids Calcylates	18
Pulvoids Natrium Compound	69
Purdue Newberry Co., The	
Castrox	41
Quartanol Tablets	34
Radio-Rem Outfit No. 2	9
Radio-Rem Outfit No. 3	9
Radio-Rem Outfit C.	9
Radium Therapy Corporation	
Radio-Rem Outfit No. 2	9
Radio-Rem Outfit No. 3	9
Radio-Rem Outfit C.	9
Reinschild Chemical Company	
Iodo-Mangan Omitted from N. N. R.	64
Rubinol	34
Robins, A. H., Company	
Pil. Cascara Compound-Robins	47
Robinson-Pattet Company	
Robinson's Hypophosphites	15
Saloform	71
Saloform (Flexner)	71
Schering & Glatz	
Tonols (Schering's Glycerophosphates)	34
Duotonol Tablets	34
Tritonol Tablets	34
Quartanol Tablets	34
Sextonol Tablets	34
Schering's Glycerophosphates (Tonols)	34
Schiffelin & Co.	
Radio-Rem Outfit No. 2	9
Radio-Rem Outfit No. 3	9
Radio-Rem Outfit C.	9
Schimmel & Co.	
Pollantin, Fall Omitted from N. N. R.	69
Pollantin Powder, Fall Omitted from N. N. R.	69
Schlotterbeck & Foss Co.	
Schlotterbeck's Solution Hypophosphites of Lime and Soda (Liq. Hypophosphitum, Schlotterbeck's)	14
Secretogen	72
Serobacterin, Neisser, Mixed	67
Sextonol Tablets	34
Sharp & Dohme	
Elixir Glycerophosphates, Nux Vomica and Damiana	35
Sodium Glycerophosphate Omitted from N. N. R.	52
Solution Hypophosphites of Lime and Soda, Schlotterbeck's	14

	PAGE
Squibb, E. R. & Sons	
Glycerophosphate Comp. Ampuls, 1 Cc., Squibb.....	48
Iron Citrate Green.....	42
Standard Oil Company of New Jersey	
Nujol	68
Stearns, Frederick, & Co.	
Alphozone	50
Succinolac	79
Succinolac Company	
Succinolac	79
Sulfo-Selene	80
Sulphuryl Monal.....	22
Synthetic Drug Company	
Diarsenol	19
Syrup Hypophosphites Comp. with Quinin, Strychnin and Manganese (Syrupus Roborans).....	14
Syrup of Ammonium Hypophosphite, Gardner's Omitted from N. N. R.....	51, 55
Syrup of Hypophosphites, Fellows'.....	13
Syrup of Hypophosphites Comp. (Lime and Soda), McArthur's.....	16
Syrupus Roborans.....	14
Therapeutic Value of the Glycerophosphates, The.....	32
Tonols (Schering's Glycerophosphates).....	34
Toxinol	38
Treatment of Alcoholism, Anderson System for.....	51
Tritonal Tablets.....	34
Uterine Wafers, Naphey's Medicated.....	66
Walker, C. H.	
Sulfo-Selene	80
Wallau, George J., Inc.	
Sulphuryl Monal.....	22
Western Laboratories	
Leucocytic Extract, Archibald's	65
White, Mark Goiter Serum Laboratory	
Mark White Goiter Serum	23
Mark White Iodinized Oil	23
Wyeth, John & Brother	
Hydras	36
Rubinol	34









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